

FLYING SPORTSMAN and SKYWAYS

AUGUST, 1947 25¢

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Winning: A Series on Early Birdmen by Gen. H. H. Arnold

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The Birdmen's Perch

By *Major Al Williams, ALIAS, "TATTERED WING TIPS,"*
Gulf Aviation Products Manager, Gulf Bldg., Pittsburgh 30, Pa.



Okay, here's the story we promised you:

The oldest pilot in the United States is Starr Nelson, of Delta, Colorado.

He's not 50. He's not 60. He's not 70.

Mr. Nelson is 80 years old!

He received his license at the age of 75. Before that he was an engineer on the "Rio Grande"; before that, a cowpuncher.

Nelson owns his own airport in Delta, which is in a valley. Just to get out of the valley Nelson has to climb 13,000 ft. in his two-control ship!

Frequently he flies to L.A. simply to attend a dance.

A widower, Nelson has five children, 17 grandchildren and two great-grandchildren. To Mr. Nelson we flap our Tattered Wing Tips in honest admiration and hope that his offsprings are as capable and competent pilots, and in as good physical condition, when they hit 80.

(We hope we are too!)

Mr. Nelson—just by being Mr. Nelson—has qualified for a Perch Pilot Commission, for our dough.

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And to us, that makes it worth it!

LITTLE KNOWN FACTS DEPT.

Let's get going:

"Glider-towing C-47's stretched from 6 to 8 inches!"

That's a "Little Known Fact About

Well Known Planes." It came from Robert Besse, Springville, N. Y. Because it was interesting enough to print . . . and because Mr. Besse *sent proof* of his "Fact," we are sending him a commission as Perch Pilot (bottom rung).



"Despite increased speed and greater lift of the outside wing, it is not the high wing in a spin!"

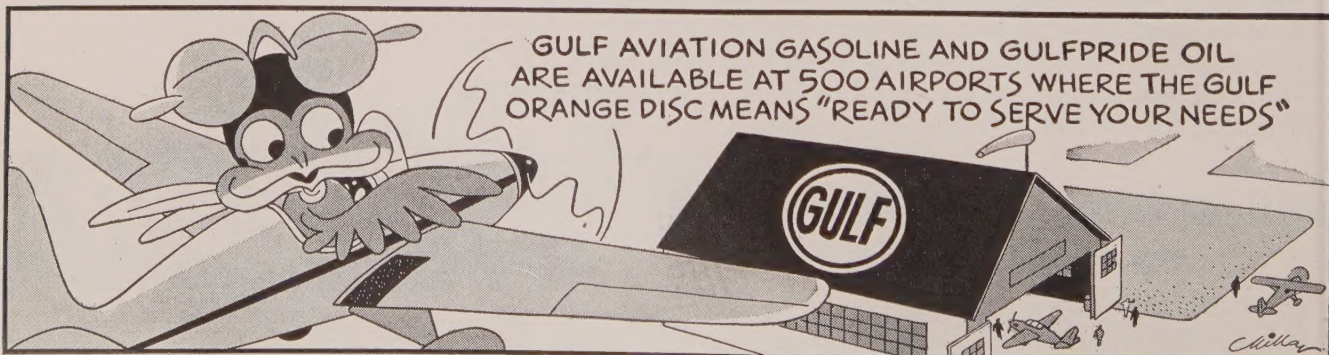
Robert G. Sommer, Gainesville, Fla. gets a commission for that one. *He sent proof, too.*

Donald Ogilvy, Scarsdale, N. Y., gets the third Perch Pilot's Commission this month with:

"Eight airlines carried 104,980 passengers across the Atlantic in '46!"

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FLYING SPORTSMAN and SKYWAYS

Incorporating Air News

Cover: Erco Ercoupe by Ross

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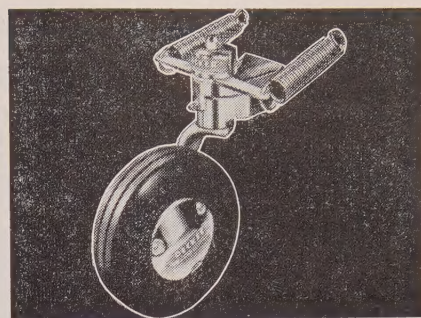
There are two Skyways: English and Spanish

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SKYWAYS, AUGUST, 1947



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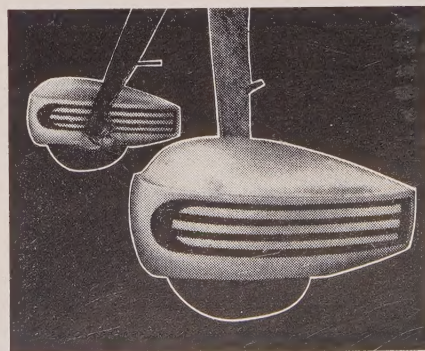
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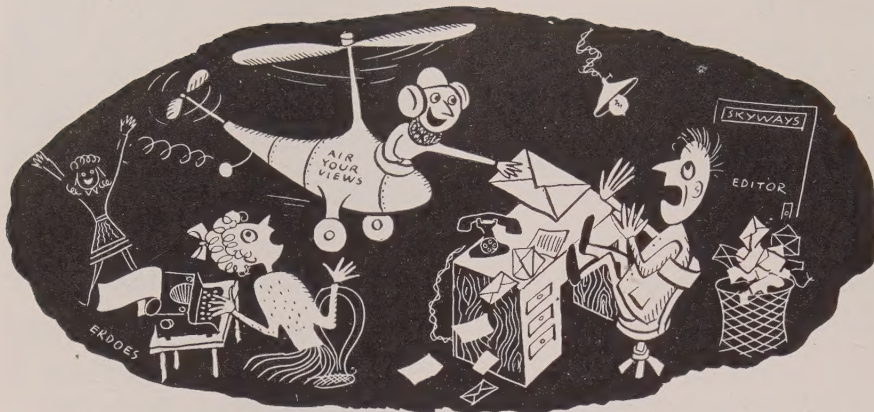
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No Longer With Us

Gentlemen:

When I read the April issue of SKYWAYS, I saw no mention of either the Johnson Rocket or the Globe Swift. Both these ships, though relatively rather expensive for the number of seats, have held my fancy with their performance, especially at their prices. I would like some late information on them.

WALTER W. DREW

West Hartford, Connecticut

Neither Rocket nor Swift is being produced at the present time.—Ed.

Correction, Please!

Dear Sirs:

I should like to correct a couple of statements made by Don Downie in the June issue of SKYWAYS, in the story "Ferrying For Fun." On page 50, he says "There is so much air travel over this forlorn desert airway that a service station operator in Columbus (N. Mex.) finds it profitable to keep a man at the CAA emergency field to supply gas to transients." He fails to state that gas at Columbus Field comes there from El Paso by way of Las Cruces and Deming, 150 miles. He also fails to state that the caretaker of the field feeds most pilots free, and is glad to do it.

AL NOBLE

Columbus, New Mexico

CAA Bulletins

Dear Sirs:

I noticed mention of a "General Engine Bulletin No. 2" in your March issue. ("Get Acquainted With Your Engine.") I would appreciate information on where and how to obtain this publication.

BOB BASCOM

Hawthorne, California

Since that article was written, three new bulletins, giving more complete information, have been printed. They are: CAA Bulletin #23; CAA Bulletin #24; and CAA Power Plant Manual #28. These may be obtained from CAA, Office of Aviation Information, Washington.—Ed.

Space In Time

Dear Sirs:

I want to thank you for the excellent editorial on cruel treatment of aviation by the secular press (SKYWAYS, April issue). I was particularly

pleased that you took Time magazine to task for their medieval attitude toward aviation. I have often thought that the aviation industry has more faith in Time than Time has in aviation, for the industry continues to place large advertisements with them, in spite of such stupid statements as the one you quoted from Time.

NORVAL HEGLAND

Miles City, Montana

CTO's and Puddle-Jumpers

Dear Editors:

I agree wholeheartedly with Mary Letsis (Air Your Views, May issue) about us CTO's (Control Tower Operators) being guardian angels for the "puddle-jumpers." Being a CTO and a private pilot, I can admit that if it had not been for an alert operator on November 17, 1946, I would have made a nice dent in a DC-3 and washed out a new Cessna 140 at Shreveport, La.

I do think, however, that Mr. Downie was quite right in his statement that you can have more fun in a light ship than in a larger craft, and it's safer. He didn't overdo it when he said you could land a puddle-jumper almost anywhere. On one occasion I made a forced landing in a backyard at Belleville, Illinois, due to a fouled up gas line. At the time I was in a J-3 and landed dead stick in less than 250 feet, thanks to a 20-25 mph headwind. Now, who can land a twin-engine craft in that space without damage to the plane?

I enjoyed Mr. Downie's article very much, but do let's not yap about CTO's yapping. I expect he can remember more than one case where he would have been in a pretty tight spot had it not been for that "Guiding Angel" CTO standing by to tell him that his left gear was up, or about a field condition not visible from the air. Remember back, Mr. Downie—don't you see our "yapping" was all in your favor?

ANSEL M. WINHAM

Ladd Field, Alaska

Feeder-Line Planes

Gentlemen:

Have you published a section similar to April's "Personal Planes for 1947" covering the next larger range of aircraft, that is, aircraft suited to light feeder-line work, capable of handling between seven and nine people?

J. M. GRAHAM

Vancouver, British Columbia

Since there were so few planes in this category at press-time for the April issue, we did not include them in that section. We understand, however, that the Grumman Wedgeon and the Beech D18S, which are in this class, are now being produced on order. And now there is the Mallard.—Ed.

Designed In Canada

Dear Editor:

I'd like to commend John Montagnes on his write-up of the Fleet Canuck in the May issue of SKYWAYS. I'd like to add, however, that apparently Mr. Montagnes did not have the ship trimmed a good "nose-down" for cruising as it cruises at an honest 100 mph at 2,050 rpm.

Now to come to the "beef" I have. Mr. Montagnes says the Canuck is the only Canadian-designed plane being manufactured here. Well! Let me name a few Canadian-designed planes being manufactured here now. There is the Noorduyn Norseman, the Fairchild Husky, the de Havilland Chipmunk, Fox Moth, Dove, and the Beaver to be flown this summer.

D. KERNAGHAN

Toronto, Ontario

Mr. Montagnes says "The Canuck is the only Canadian-designed personal plane being produced. . . ." Of the planes you mention, the Norseman and the Dove can not be included in the category of personal planes. The Husky is not considered a personal plane by its manufacturers, but rather a "bush" transport, while the Chipmunk is "essentially a military and civil elementary trainer and may also be used as a personal plane" according to De Havilland of Canada. The Fox Moth is not Canadian designed. The Beaver is a freight aircraft, Canadian designed, not yet in production. Therefore, we believe that Author Montagnes was correct in his assertion that "The Canuck is the only Canadian designed personal plane. . . ."—Ed.

Approves CAA Marker

Gentlemen:

I read your article on the new CAA Airport Marker in the June issue, and would like to express my opinion accordingly. It is the most logical and sensible type of marker I've seen and, as a pilot, I would appreciate a uniform marker of this type at every airport. I don't believe it would be an expensive project. At the present time, we have such a conglomeration of markers that it is really a mess, and, in many instances, they are impossible to see. In my opinion this is one of the greatest grievances in flying. A uniform marker should be a forced issue throughout the country.

DR. K. F. VAIL

Orlando, Florida

Gentlemen:

I heartily endorse your illustrated CAA Marker System. Since only the sock, Tee, and perhaps the pattern arrow and taxiing conditions need be moveable, why not make the bulk of the marker of permanent construction? For instance, white painted brick or concrete sunk almost to ground level and frequently repainted. For night operation, imbedded reflectors and flood lights could be used.

LT. CMDR. ROBERT WUEST
Staten Island, N. Y.

According to our mail, you voice the opinion of most pilots in the country. The favorable response to this marker system has been overwhelming. We'll send these letters to the CAA. Our thanks to you.—Ed.

Offered Info

Gentlemen:

I ran across Mr. Barton's plea for help in the June SKYWAYS. The organization to which he refers is "The Confederate Air Force" of which I am a member. It is a group of pilots who are trying to promote aviation in the South. Each member is commissioned a Southern Colonel. Headquarters are in New Bern, North Carolina and the National Commander is Col. A. T. M. Sorley. His address is 1423 Spencer Ave., New Bern. For further information, interested pilots should contact him. Thanks for your interest.

REX BENNETT

New Bern, North Carolina

Our thanks to all you readers who sent in the address of this confederate outfit. We'll be watching for news of this group.—Ed.

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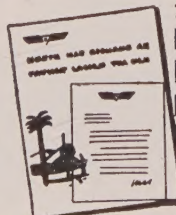
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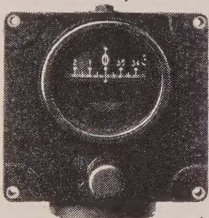
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Costly Economy

AN EDITORIAL

BEN FRANKLIN'S precept about the folly of being "penny wise and pound foolish" has never had more trenchant demonstration than in the acts of the present Congress. Cost what it may in the years ahead to the safety and well being of the people of the United States, the gentlemen with the ax are hell-bent for slashing the budget.

Aviation, being without the powerful spokesmen available to the more opulent industries, is on the receiving end of a very considerable part of the slashing.

All this is said with due respect to the many honest members of the House and the Senate who are trying to do a disagreeable and necessary job with complete fairness. We all want economy in government and we all recognize that the national income and the national expenditure must be brought into sensible alignment. No one who has firsthand knowledge of the management of government departments questions the fact that tremendous saving can be made by the elimination of wasteful methods and excessive personnel.

But blind and willful lopping off of urgently needed services in order to be able to boast that so many billions were saved to the tax payers is both dangerous and ridiculous. In the end, it can be very costly "economy." To cite but one infamous example: there was the Congressional folly of 1910 which cut the AAF appropriation from 6,000 planes to 60—just a year before Pearl Harbor.

There is a definite reason for these remarks: Congress is at present working on the appropriations for the new fiscal year and at the moment of writing, the House Appropriations Committee has recommended a total reduction of approximately \$70,000,000 in the CAA budget. Fifty-two per cent (\$18,670,000) of the amount requested for the establishment of Air Navigation Facilities and 24 per cent (\$15,225,000) of the funds for their maintenance and operation would be refused if the Committee's recommendation is adopted. An additional 43 per cent cut (\$1,500,000) is recommended in technical development funds, and 50 per cent (\$32,500,000) for airport construction.

Yet these are the very core of the development of civil flying in the United States. It is only a few months since the Interim Report of the Committee on Interstate and Foreign Commerce Investigation on Air Safety stated: "The Subcommittee is fully aware of the cost involved in recommending the expenditure of funds for these installations. However, it is the belief of the committee that any corrective measures calculated to *save lives* must be considered with a view of installing the most modern and proven equipment available.—The members of the subcommittee stress the urgency of the installation of all possible navigational aids as far as feasible before the winter of 1947-48.—It appears that there have been a certain number of accidents recently which might have been prevented had certain facilities been available."

In the debate on the floor of the House in May concerning the Committee's slash of the less than \$5,000,000 request for Control

Tower operation Claude I. Bakewell, (Mo.) said: "What is the cost of this program? I believe in economy. This program is less than \$5,000,000. Yet, if you have one disaster involving a DC-6, you will have lost almost a million dollars right there. Of course, we would not attempt to evaluate in dollars and cents the human lives, and on these large passenger ships there can be 40, 50 or 60 people.—Aviation is peculiarly interstate and national in scope, more so than any other medium of travel. To turn this responsibility back to the local communities would definitely be a step backward in the development and progress of aviation. There must be uniformity in the operation of air control towers. To deny these funds to the CAA is tinkering with safety and toying with human life which we cannot afford to do when we consider the comparatively minor sum involved."

An amendment from the Floor finally restored the sum for the 148 control towers to the Bill, but the battle continues over the other cuts with very little hope in sight for any major restoration of funds.

Congress screamed last winter when bad weather accidents were making headlines. Yet now it is denying CAA the money to make the improvements for safe flying which its own investigators recommended. Here are the essential items which will be eliminated if the "economy" measures are passed:

- 349 VHF radio ranges
- 16 non-directional radio homing beacons
- 4 communications stations in Caribbean area
- 1 VHF radio range in the Pacific
- 16 GCA radar installations
- 12 communication stations in the Aleutians
- 122 instrument landing systems
- 9 fan markers
- 2 VHF relay stations
- 4 teletype weather stations
- 1 long distance radio range
- 6 compass locators
- 48 beacon lights
- 17 intermediate fields (and/or lighting)
- 22 tetrahedrons
- 182 standby plants
- 30 approach light lanes
- 78 VHF communication stations
- 1 (new) airway traffic control center

In addition, 52 presently established aeronautical communications stations and associated radio aids must be discontinued.

The 43 per cent cut in technical development will eliminate experimental programs for 1) radar air navigation aids to be used in the Federal airways system; 2) landing aids (including fog-dispersal devices); 3) improved contact charts for personal flying; and 4) radar charts for air navigation.

All this is a pretty sad commentary on our common sense as a nation. Revenues received by the Post Office Department from air mail have been steadily growing and paying back to the Treasury the amounts expended on airways development and maintenance. We as a people have a tremendous stake in our aeronautical progress, both in dollars and in national security. It is about time that we ask the gentlemen with the ax if they understand that they are selling our birthright for a mess of political pottage. J. FRED HENRY

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The one personal plane which meets the dual requirements of today's hard working, sports loving executive . . . The Seabee all metal amphibian operates from field or stream, thus multiplying safety factors many fold . . . Relaxing comfort in the luxurious four place cabin with plenty of head and leg room . . . The 215 H. P. Franklin gives speed and range enough to get you through with ease and economy . . . Controllable and reversible pitch propeller, and hydraulically operated flaps and landing gear are standard . . . and assure better take-offs and landings Price \$6000 F.A.F.



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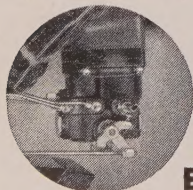


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Name _____

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PROP WASH

Aero Oddities

Make Hay. Letting things go to grass isn't such a bad idea. An airport operator at Hoosick Falls, N.Y. collects \$100 a year from hay that grows along the field's runways. (*A. M. Robeison, Hoosick Falls, N.Y.*)

Right Time, Wrong Field. Flight of three P-47's landed at Aberdeen Proving Ground Air Base despite red light. Frantic tower operator called pilots to tower to explain incident, learned it was ferry flight enroute to Wilmington Air Base. Pilots had called Wilmington tower, received okay to land, then had come in at Aberdeen thinking it was Wilmington. Meanwhile the W. Tower scanned skies for flight that never showed up. (*M. H. Ginder, Havre de Grace, Maryland*)

Name an' Number. The man in a New York phone booth comes close to getting what he wants when he spells "airport" on the telephone dial. Fairchild Aircraft & Engine Corporation will answer. (*B. Ellwood, New York*)

Stroke! Each piston in a popular 85-hp airplane engine travels approximately 16 miles in one hour of operation at cruising rpm. (*H. L. French, Grand Rapids, Mich.*)

Wing Fishing. Pilot J. S. MacMath, fun-hopping in his Aeronca Champion, spotted a fish hawk carrying a fish too heavy to manage. He dove at the bird, causing it to drop the fish, circled back, landed and retrieved a 2-lb. 6-oz sea trout for his dinner table. (*J. MacMath, Cape Charles, Va.*)

Finders Keepers. Rudolph Chalow, flying near Milway, N.J., saw a balloon floating near him at 1,200 feet, circled it, noticed it was descending. Marked spot on map where balloon came to ground, landed at airport and with two friends drove out to get balloon. Found large card attached which offered prize to person who found it. Chalow won

airplane cigarette lighter from company in Phoenixville, Pennsylvania. (*R. Chalow, Vineland, N.J.*)

Forced Sale. Pilot in a PT-19 made forced landing in field belonging to farmer R. Garrison. Pilot climbed out, greeted the farmer, sold him slightly damaged aircraft, walked away. (*McLeary, Soap Lake, Wash.*)

Right Plane, Wrong Speed. Pilot flying a Stearman from Oklahoma City to Tulsa was making final approach to the field, noticed he was coming too fast, checked airspeed but found it okay. He cut the throttle and ballooned across the field before touching down. Discovered he was flying ex-Navy plane with airspeed calibrated in knots. (*J. D. Gholson, Tulsa, Okla.*)

Slipstream Spectacles. Mrs. J. Richardson went for an airplane ride in an open cockpit biplane, lost her glasses in plane's slipstream. Two months later Wm. Roberts Sr., found the glasses in hay and pasture meadow, returned them to owner. (*Wm. J. Roberts, Arena, Wis.*)

Hold de Eggs. Private pilot George Reiss flies to a chicken farm outside Youngstown, Ohio, buys eggs for family and friends, flies them back to airport near his home. Says Reiss: "... 20 minute flight saves me half an hour's drive in car ... and saves eggs too. Break more in an auto." (*Dugan, Niles, Ohio*)

Att'n Readers:

If you have any news-note oddities pertaining to aviation, send them to SKYWAYS, Box 17, 444 Madison Avenue, New York 22, N. Y. Five dollars will be paid the sender of each "oddy" printed. Contributions cannot be returned unless accompanied by stamped addressed envelope. The decision of the editors is final.

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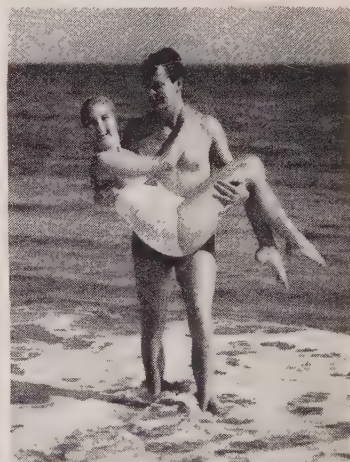
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S-8

Flying Sportsman News

STUDENTS MAKE SPRING VACATION FLIGHT TO FISH

Fishing Rodeo Set for Sept.-Oct.

The Southeastern North Carolina Beach Association, of Wilmington, North Carolina, announces its second annual fall fishing rodeo, with prizes totaling \$15,000 in cash and equipment, to be held from September 15 to October 31.

Just to make things easier for contestants flying in, the New Hanover County Airport is only two and one half miles from the center of Wilmington's business district, and six miles from the ocean. This lively field offers weather information, 80, 91, and 100 octane gas, and two shops with A&E mechanics. They provide charter service, food, drinks, Western Union, and telephone. There are three 7,000-foot paved runways, hangars, sales room for parts, tie downs, and night landing facilities.

Wilmington's tourist advantages are characterized by variety. There are historic ruins, golf, tennis, bridle paths, and fishing in the Gulf Stream. The fishing rodeo will include prizes for boat, pier, and surf fishing, and the fish include barracuda, blackfish, striped bass, channel bass, dolphin, flounder, tarpon, trout, spanish mackerel, and many others.

That prize money is worth flying a long way to try for, and even without it, this vacation spot is still worth the trip. For detailed information write the secretary, Southeastern North Carolina Beach Association, P. O. Box 698, Wilmington, N. C.

HOW TO WIN FRIENDS...

TWA has inaugurated a new system of briefing aboard their *Constellations* which is meeting with solid favor among the passengers. Just before take-off, the hostess tells the passengers, in groups of a half-dozen at a time, the names of the crew, the route over which the airplane will fly, the altitude and flying time to the next stop, and points of interest over which the route lies.

This sounds like a good tip for charter operators who fly groups to hunting and fishing areas. The operator will probably know the territory better than the passengers will, and can give some friendly tips which will leave the passenger with a favorable attitude toward the line.

FLYING CARPET TO LEILAND

The would-be visitor to lovely Hawaii can now make the trip via United Airlines in just about 10 hours from San Francisco. And Hawaii is really putting out the red carpet to provide a royal welcome to the vacationer.

Outstanding, of course, is the deep sea sport fishing for swordfish, dolphin, tuna, wahoo, big-eyed jack, etc., open the year round. Also legal all year is wild pig, goat, and deer. For the less adventurous, there is always swimming, surf board riding, etc.

Classes lose out to bass as vacation comes to pilot-student

We wanted to fish off Florida, so the first day of our spring vacation from Northwestern University went like this: Out of Chicago at 8 A. M.; coffee in Louisville 10:30; lunch in Athens, Georgia; dinner in Daytona Beach. A change in temperature 60 degrees in only seven hours flying time accomplished with a Stinson *Voyager* and a healthy tail wind!

The second morning we were up with the Florida sun and buzzed on down the coast. That is a sight no flying fisherman should miss—blue Atlantic, white sand, green-brown swampland. More important were the fish—hundreds of them, swimming in the shallow water. Sharks and rays were easily distinguishable at a thousand feet. The small varieties were probably king fish and snappers. That gave us an idea. Spot the fish from the air, then rent a boat and go after them. Why, we could clean out the Gulf!

REAL AVIATION SERVICE

It was worth a try, so we flew on down the Keys to Marathon. This field is really only a North-South strip, but it's long, wide, and made of concrete. We tied down the ship and prepared to hike to town, but found that "aviation service" means just that—service. The highway patrolman, Mr. Anderson, drives out personally to meet each pilot. Just fly over Marathon, waggle your wings and he'll be out to greet you.

We checked in at the Over Seas Lodge. They have a hotel, cottages, and excellent food, especially their red snapper and limpie. Now that we had tasted those snappers and mackerel, we wanted a try at catching them. We changed to dungarees and hiked down to the fishing docks. With our system of spotting, it would be a cinch—we might even raise the white flag for a sailfish. There were several fishermen who were willing to help us try. We chose two brothers who had a boat equipped for four. They furnished all of the tackle and an assisting hand when needed.

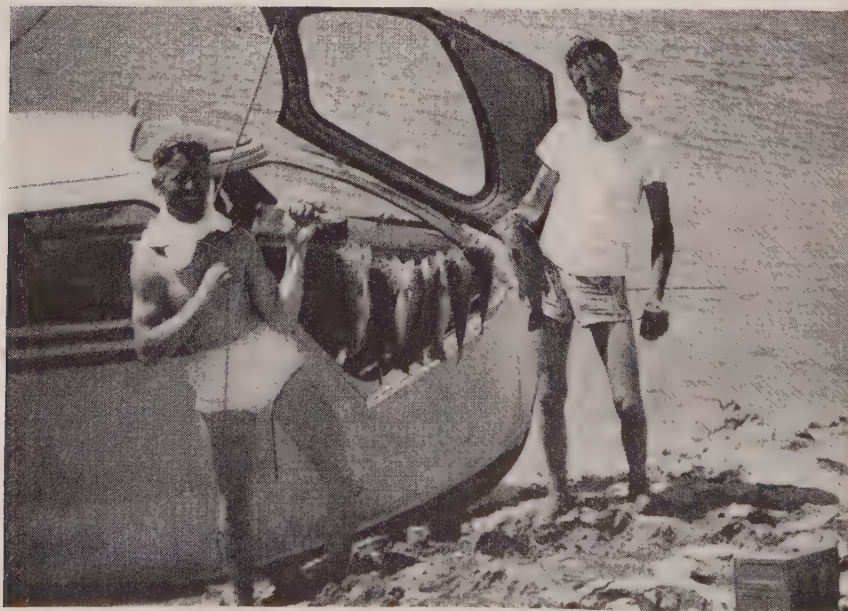
NO FISH SHORTAGE

The next three days we spent on the Keys, out in the Atlantic, up in the air, and back again; locating schools of fish then going after them. The only trouble was that the darn fish would move to another spot. We didn't quite clean out the Gulf; no danger of a shortage if you are planning to go down.

We allowed the last two days for the return trip. This time we flew up the west coast of Florida, spent the night in Louisville, and came on in the next day. Our fish stories must not have been impressive, but we won these northerners with our tans! Back at the studies, we immediately began making plans for another flying-fishing trip during summer vacation.

—Betty Jean Clark

TAKES LIMIT OF BASS FROM LAKE MEAD



ONE YEAR after solo, Bert Jackson (left) has over 200 hours, a Navion, and half a Seabee. He flew to Lake Mead from Los Angeles, for the bass above, in half the driving time

GIVES PEAK PERFORMANCE

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1/4 SHORTER TAKE-OFF: Automatically with engine at full throttle, Aeromatic Propeller assumes low pitch. Gets plane off ground quickly with full take-off power.

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WRITE FOR INFORMATION! If you own a new plane or plan to buy one, enjoy the extra advantages of an Aeromatic Propeller. Write to your aircraft manufacturer or distributor and ask about an Aeromatic for your plane. Or drop us a line for your free Aeromatic booklet. Koppers Co., Inc., Aeromatic Propeller Dept., 278 Scott St., Baltimore 3, Md.

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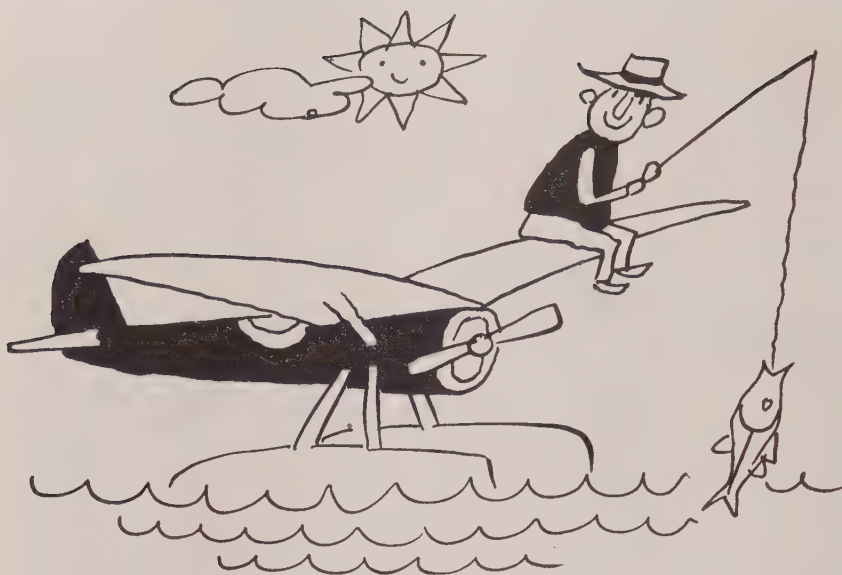


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Where to Fly

NEW YORK

New York state, famed for its wide variety of seasonal sports activities, has put out the welcome mat for the visitor who comes by scheduled airliner or private plane. And with beaches, golf courses, boat clubs, fishing waters and dude ranches in great abundance, a large number of visiting flyers undoubtedly will be recorded in the ledger of "Who's here."

As far as the scheduled airliners are concerned, the Empire State is served by TWA, United, American, Eastern, Capital, Colonial, National, Northwest, and Northeast. In addition there are dozens of good charter services that fly into and out of the state anytime of the day or night.

To mention just a few of the available "places-to-go-with-things-to-do-when-you-get-there", up in the Adirondacks, at Lake Luzerne, there is the Rocky Ridge Ranch, offering its guests practically every type of outdoor sport, excellent lodging and good food. Rates run from \$6.50 per day up to \$55 per week. This amount includes room and board as well as use of horses, canoes, boats, bicycles, tennis and badminton courts, archery ranges and other sports equipment, etc.

Sun Canyon, a lodge at Warrensburg, N. Y., also offers dude ranch facilities to those interested in getting a real taste of the West here in the East. Rates, running from \$7.50 daily to \$78 weekly, include meals and use of facilities. Nearest airport is at Glens Falls.

Another spot of particular interest to owners and pilots of personal planes is the Grossinger Hotel and Country Club, Ferndale, N. Y. An airport is operated in connection with the Hotel, and planes for the guests' use (at a fee, of course,) are provided.

Pilots coming into any of the airports listed below will find readily accessible facilities for hunting, fishing, swimming, boating, horseback riding, and in many instances golf and tennis. A letter to the airport manager will bring you detailed information regarding lodging, etc., for respective areas.

PERSONAL PILOT INFORMATION:

Amsterdam Airport—Amsterdam. (Cl. 1)—El. 887 feet; 2 cinder & sod runways, N/S, SE/NW. Name on hangar roof, Wind cone. Obstructions: Farm to SE. Hangars, tie-down, repair service. 80 & 91 Octane fuel. Restaurant and rest rooms. Taxi to town 6 miles N. (Albany Chart)

Naticoke Valley Airport—Maine. Runway, N/S. Obstructions: Trees, N. Hangar, tie-down, mech. Restaurant and rest rooms. Car to town 2½ miles (Albany Chart)

Fulton Airpark—Fulton. (Cl. 1)—El. 360 feet; 2 turf strips, N/S, SE/NW. Boundary day markers. 2 hangars, tie-down, mechanic. Restaurant and rest rooms. Bus and taxi to town. 5 mile W. (Albany Chart)

Oneida Lake Airpark—Lakeport. Paved runways, NE/SW, NW/SE. Obstructions: Wires end of NE/SW runway. 5 Hangars, tie-down, mechanic available. 87 Octane fuel. Airport car to town 6 miles. (Albany Chart) This field offers restaurants and hotel just few yards from field. It is also a seaplane base offering unlimited landing area. Reservations will be made for weekend excursions, land-plane or seaplane. No landing fees.

Mahopac Airport—Mahopac. Turf runway, N/S. No obstructions. Hangar under construction, tie-down. Minor repairs. 80 Octane fuel. Restaurant and rest room facilities. Taxi to town. (New York Chart) This airport is operated in conjunction with Echo Valley Ranch. Rates on request.

Malone Airport—Malone. (Cl. 3)—El. 790 feet. Asphalt runways, NW/SE, NE/SW. No obstructions. Wind cone. T-type hangars, tie-down, major repair, 80 Octane fuel. Taxi, bus or car to town 2 miles W. (Burlington Chart)

Crowner Airport—Wellsville. El. 1,300 feet; 2 sod strips, N/S, E/W. Boundary day markers, Wind cone and Tee. Obstructions: Trees, W. Hangars, tie-down (free), part-time mechanic. 80 Octane fuel. Free transportation to and from town. (Albany Chart)

Mattituck Airbase—Mattituck L. I. Runway, N/S. Hangars, tie-down, mechanic available. 80 & 91 Octane fuel. Car to town ½ mile. (New York Chart)

Warren County Airport—Glens Falls. (Cl. 3)—El. 325 feet. Asphalt & concrete runways, N/S, WNW/ESE. Rotating beacon. Boundary, range and contact lights. Light wind cone and Tee. No report available for plane service facilities, assumed to be good. Taxi to town 2.4 miles NNE. (Albany Chart)

MISSISSIPPI

Mississippi's vacation season is 12 months long, thereby presenting the personal pilot with a vacation spot to fly to anytime during the year. For example, while golf in the North are snow-bound, young grass carpets the courses in Mississippi, and "winter" tournaments attract many plane lovers of players. There is salt water fishing in the Gulf of Mexico, and plenty of fresh water angling throughout the Delta area.

Lodging facilities are good, and a letter to the Metcalf Aviation Co., P. O. Box 4, Greenville, Miss., for example, will bring you detailed information regarding vacation spots in and around Greenville. Too, Metcalf Aviation will arrange duck hunting or fishing parties for you, and make the necessary arrangement for guides.

PERSONAL PILOT INFORMATION:

North Jackson Air Park—Jackson. (Cl. 1)—El. 300 feet; 3 turf strips, N/S, NW/NE/SW. Wind Cone, Hangars tie-down, no repair. 80 Octane fuel. Taxi to town 1 mile NE. (Shreveport Chart)

McComb Municipal—McComb. (Cl. 1)—El. 460 feet; 2 sod strips, N/S, NE/SW. Circle on field. Hangar, tie-down, mechanic available. 73 Octane fuel. Courtesy car service to town 1 mile NW. (Beaumont Chart)

Cypress Airport—Greenville. (Cl. Sub.) Sod strip, NNE/SSW. Wind cone. Hangar, tie-down. No mechanic. 80 Octane fuel. Taxi service to town one-half mile. (Shreveport Chart)

Gulfport Municipal Airport—Gulfport. (Cl. 1)—El. 30 feet. Allway sod landing area. Rotating beacon, boundary day markers, light and name on hangar, wind cone. Obstructions: Towers, SE, SW, NE; Stack, W. Hangar. 80 Octane fuel. Taxi to town 1.3 miles N. (Mobile Chart)

Fletcher Field—Clarksdale. (Cl. 4)—El. 175 feet. Allway sod runway & cement runway N/S. Flood lights, boundary day markers, wind cone. Hangars, minor repair, 24-hr. service (Little Rock Chart)

UTAH

One of the most beautiful and awe-inspiring... (Continued on page 80)

Your Blueprint for a Bright Future

A CAREER IN AERONAUTICAL ENGINEERING

Blueprints guide today's spectacular aircraft developments... and the brilliant future of all aviation. *Back* of those blueprints is the aeronautical engineer — whose creative genius, technical knowledge, and professional skill bring about the improved designs, the new aircraft, the new power plants... that advance aviation so swiftly.

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Check one: ☐ Veteran ☐ In Service ☐ Civilian

APPROVED FOR VETERANS



FLYING CIRCUS of the barnstorming 'Twenties' is being revived in California by Sammy Mason of the *Hollywood Hawks*, shown above on wing-tip of his "Jenny"

HANGAR FLYING

Recommended . . . for copying

BOWLING GREEN, KENTUCKY—At Warren County Airport students sign a "rules" card before their first solo—and ever after if found breaking flying rules in traffic, the pilot is unable to say: "But I didn't know!"

Their Air Traffic Rules card (2 by 4 inches in size) has the following printed on it:—

1. Taxi on left side of runway.
2. Clear for incoming traffic before take-off.
3. Climb straight out to 400 feet, level off, clear, turn to left 90°. Climb to 600 feet, level off, turn to right 45° for breaking out of traffic.

4. Enter traffic at 600 feet, 45-degree angle to any runway. Circle field to left, observe wind tee, use 90-degree approach for landing. Touch-and-go landings permitted.

5. Local traffic will give right of way to twin-engine or faster aircraft when observed in pattern. Continue to circle field until runway is clear. Do not take off or land when twin-engine aircraft is on runway.

The above air traffic rules have been read and understood by: (Pilot signs here).

A Walk in the Sun

PALM SPRINGS, CALIFORNIA—Warren S. King took a walk in the sun and the photographer caught him in the unusual pose at the top of the page. This was a stunt and part of an act in Sammy Mason's flying circus—the airshow which is bent on reviving the barnstorming "Twenties."

The un-Jennylike *Jenny* is a rebuilt Curtiss JN4D. The wings are recovered originals, although the fuselage was built up of steel tube. A 175-hp Ranger engine assures greater power than its historic predecessor (in *Jenny*), the 90-hp water-cooled OX-5.

We suspect Sammy Mason, the owner, and Roy Cusick, the pilot, receive many a request for rental time from former *Jenny* pilots.

Navigational Aid

GLENDALE, CALIFORNIA—Pacific Airmotive Corp. is distributing, without charge, a label-reminder for pilots to affix on the center of the face of the altimeter.

The label bears information which serves as a handy reminder to the pilot—to properly maintain (CAR) designated altitudes. The following information is contained in graphic presentation obviating the need for the word description as found here: From 0° to 89°, fly at odd number of thousand feet (1000, 3000, 5000, etc.). Between 90° and 179°, fly at odd number plus 500 feet (1500, 3500, etc.). Between 180° and 269°, fly at an even number of thousand feet (2000, 4000, 6000, etc.). If your course is between 270° and 359°, fly at an even number of feet plus 500 feet (2500, etc.). All degrees refer to magnetic headings on the compass.

It's a handy white circle "sticker," an inch and a quarter in size, which you can get by contacting Pacific Airmotive Corp., 6265 San Fernando Road, Glendale 1, California, and mention SKYWAYS.

Recommended . . . for clipping

PHOENIX, ARIZONA—A local tower operator volunteered the information that private pilots in ships having retractable gear, flaps etc., not found in primary trainer types, seem to fly erratic patterns these days. His thought is that they may be coming into traffic with a few cockpit odds and ends to perform that would be better taken care of before entering the pattern.

The following cockpit "ditties" (GUMP or CHUMP) are easily memorized and can cover a multitude of sins.

PRE 45-DEGREE ENTRY TO TRAFFIC, CHECK:

- Gas selector valve . . . on
- Undercarriage . . . down

- Mixture . . . in (rich)
- Prop control . . . high rpm; and/or
- Position of flaps . . . as desired.

(On 45-degree entry leg re-run a GUMP check—then you'll enter traffic with all pit duties dispensed with properly.)

Or, this variation may suit your plane experience better:

- Carburetor
- Heat off . . . (usually)
- Undercarriage . . . down
- Mags . . . on both; and/or Mixture . . .
- Position of flaps . . . as desired; and
- Prop control . . . high rpm.

Run a CHUMP or GUMP while at the altitudes (with proper application)—i.e. Gas, Undercarriage, Mixture (or Mags), Prop and Position of flaps, all as required for flight altitude.

For a forced landing, your best bet is to run a SWAMP check:

- Switches (fuel, mags, master) and S
- field
- Wobble
- Altitude—Airspeed—Attitude . . . hold all of them
- Mixture . . . in (rich); and Mags . . .
- Prop control . . . high rpm; Position of flaps . . . as desired; Position of . . . as desired (usually up).

Did You Know . . .

WASHINGTON, D. C.—Pilots flying NX aircraft cannot cross the borders into other countries? The designation NR which was formerly applied to all aircraft which were worthy but restricted to some particular commercial use, such as crop dusting, skywriting or towing (banner advertising), has been dropped. All aircraft will now bear designation of

4,525,165 Landings

ST. LOUIS, MISSOURI—A gear display machine, to simulate landings on rough ground, began registering landings of the Civil Air Safety landing gear at Cleveland, Ohio, November, 1946.

By May, 1947, 4,525,165 landings were registered on the synchronized counter. The display machine was in operation at the St. Louis Air Fair. This sounds like a good demonstration of the reliability of landing gear.

Airmarking Marker . . .

BOSTON, MASS.—A former Boston architect, Mr. Christian Born, formed a company, Air Markings, Inc., which specializes in just that.

Air Markings, Inc., offers a three-part service which: 1) locates, 2) designs, 3) executes air markers to conform with Civil Aeronautics Regulations.

A representative from Air Markings surveyed territory surrounding airports, interested municipalities and other special territories and recommend suitable locations. The firm will then prepare designs and provide complete patterns. Final act in the process is to execute the plans . . . in paint on rooftops, by landscaping in parks and airport grounds (crushed stone or shrub arrangement) or by use of porcelain characters raised above the ground. The firm will wish this project every success.

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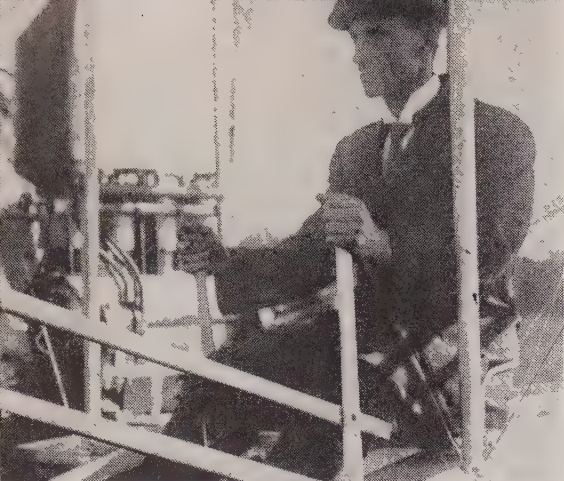
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LICENSE #4, awarded by Aero Club, was given Wilbur Wright

THE FIRST TEN

These are 10 of first 30 airmen to hold pilots' licenses

By General of the Army H. H. ARNOLD



LICENSE #2 was held by Lt. Frank P. Lahm. Wrights taught him to fly

EVERYONE has heard the expression, "flying by the seat of the pants" but very few of today's airmen realize how aptly that expression describes the requirements back of the first airplane pilots' licenses to be issued by the Aero Club of America. Very few of today's pilots realize that those licenses were issued only after tests which, at that time, were considered quite severe, and which called for the very kind of flying that colorful and so often quoted phrase suggests.

An applicant had to fly an airplane in Figure 8's, had to reach a certain altitude, had to make a dead-stick landing from a certain altitude, and come to within 50 meters of a mark. When it is realized that these old airplanes and engines sometimes functioned, and sometimes did not, that very little was known about aerodynamics or the real reasons why airplanes did certain things in the air, that a pupil could be taught everything the instructor knew in about two hours' flying, then it can be appreciated that these tests were about all that could be imposed on the new pilots.

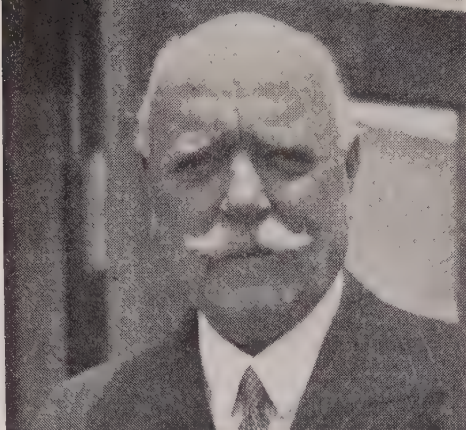
Although it was a generally accepted fact that Wilbur and Orville Wright were the first two men actually to fly heavier-than-air aircraft, they were not given Pilots' Licenses Nos. 1 and 2. The real reason for this may have been that the Aero Club of America was "peevish" at the Wright brothers because of the scanty information anyone received from either Kitty Hawk, North Carolina, or Sims Station (outside

LICENSE #1 was given to Glenn Curtiss by Aero Club. He won Scientific American trophy for 1-km hop in July, 1909





LICENSE #6 was awarded to noted sportsman **Clifford B. Harmon**



LICENSE #8 belonged to **Anthony Drexel**. He learned to fly in 1909



LICENSE #3 was given to **Paul Han** who won Manchester race

Dayton), Ohio, during those early pioneering days. Glenn Curtiss, on the other hand, gave information of his flights "upstairs" very freely.

Be that as it may, Pilot's License No. 1 was given to Glenn Curtiss who, in 1906-07, was associated with Dr. Alexander Graham Bell, J. D. McCurdy, Tom Selfridge and Tom Baldwin, and who, in July, 1908, won the Scientific American trophy by making a straightaway hop of one kilometer (.6 mile). It may be that his winning of the Scientific American trophy was the determining factor in the awarding of Pilot's License No. 1 to Glenn Curtiss, although, by that time, the Wrights were flying circular courses of many kilometers. As a matter of fact, the Wright brothers brought their machine to Fort Myer, Virginia, in 1908, to compete against all comers, in the United States Government competition.

The following year Curtiss won the first Gordon-Bennett airplane race in Rheims, France, with a speed of 147 mph. In 1910 he won the \$10,000 prize for making the first flight from Albany to New York City.

As most people know, Curtiss had been a builder of motorcycles, and had worked with internal combustion engines long before he took up flying. He proved himself to be an expert motorcycle rider as well as a master builder when, in 1906, he created a motorcycle speed record of 137 mph—a record that stood for years.

Pilot's License No. 2 was given to Lieutenant Frank P. Lahm, U.S. Army. This is also rather difficult to (Continued on page 48)

CAPT. BALDWIN who held License #7 started plane flying at 56



GLENN CURTISS gave information of his flights freely which may be reason he got License #1 and Orville Wright (below, right) #5



LICENSE #10 belonged to **Charles Willard**, a Curtiss man





PLANES lined up on apron at Bradley Field include Cubs, Luscombes and even 15-year-old four-passenger Zenith

TROUT STREAMS in the Idaho Primitive Area offer excellent trout fishing within two-hour hop of Bradley Field





GAS PUMPS that visiting airmen can see are point of pride to operators, and help to service-conscious flyers

SPORTSMAN'S AIRPORT

BRADLEY FIELD at Boise, Idaho, is a modernistic, brand new 350-acre private airport that was designed for the sole enjoyment of the sportsman flyer and his friends. While that fact, plus what half a million dollars will build, is not unique in itself any longer, there is something about Bradley Field that places it in an unusual category among airports.

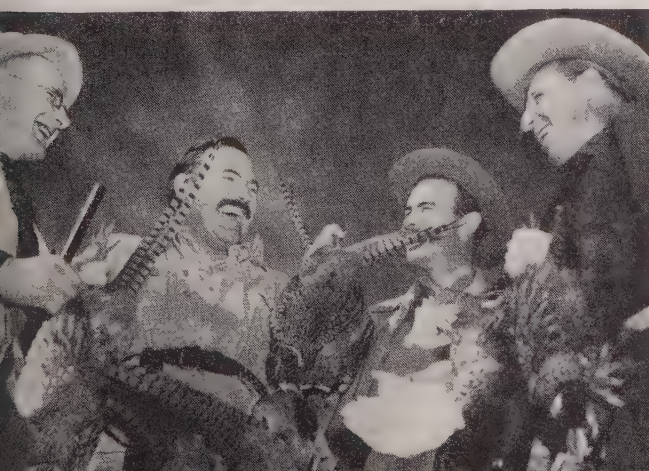
That something is its location. The wonderlands of scenic beauty that lie within a 300-mile radius and run the gamut through spectacular mountains, hidden lakes, ghost towns, secluded valleys, rich farms, luxurious range-lands which contrast in turn

with the desolation of lava wildernesses, deserts, wild-horse breaks, magnificent gorges, towering peaks, and . . . but hold a minute and we'll get into more detail later.

It is important also to consider the first-class cafe, the 13-unit hotel bounded by flagstone terraces, the sun-drenched pilot's lounge, the spotlessly clean rest rooms with showers and plenty of hot and cold running water, the master mechanical shops which include magnafluxing equipment and a staff of expert mechanics who are capable of building your airplane from the ground up in supplying service and repairs, and last—as well

By **BOB ARENTZ**

PHEASANT HUNTING in Idaho has attracted hundreds of out-of-state hunters. Among the yearly visitors are Ernest Hemingway (second from left, below) and Gary Cooper (at right), shown here holding eagle he shot





DISPLAY ROOM for aircraft accessories, situated between the lounge and restaurant, attracts visitors

as the best—a real sample of western hospitality.

(You could probably get a new engine or a major overhaul on an overnight stop if you arranged for it ahead by wire.)

There is a master Firestone aviation supply store, a completely equipped radio shop, a CAA-certified flight school giving everything in the way of tickets except (at the present time) airline pilot ratings, and never less than 15 qualified commercial pilots and instructors around to provide advice, training or commercial and private license flight tests.

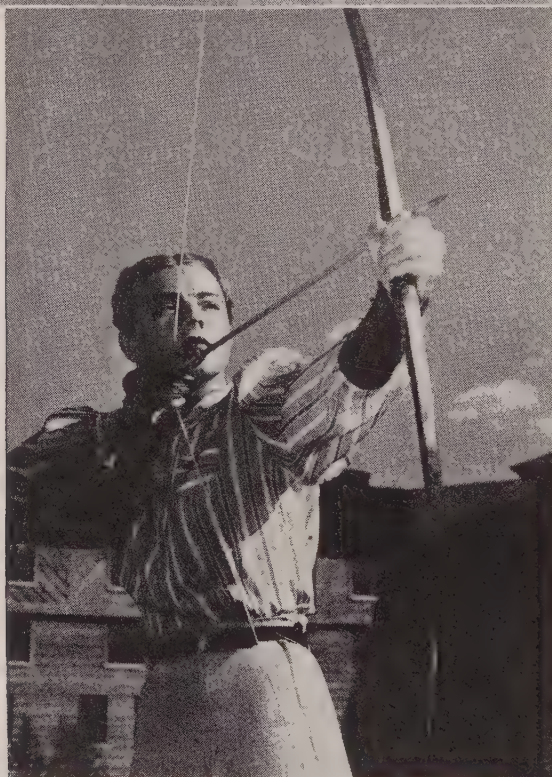
The private water supply system that provides cleansed and filtered-pure water, would be ample for a town of 3,500 people.

Between 35 and 40 privately owned aircraft are based there permanently and they range from executive Beechcrafts, twin-engined transports down to such antiquities as a Zenith biplane powered by a 450 radial engine, a four-place cabin job with open cockpit that probably not one person in a hundred ever heard about.

Fifty T-hangers, fireproofed and in units of five, are under construction, and the main hangar itself is big enough to park a Douglas in, if you are one of those private owners who can afford a DC-3 and don't like it to sit-out.

The hot cakes, and bacon and coffee at the cafe in the morning are worth flying in from Salt Lake

SUN VALLEY, mecca for outdoor sportsmen winter and summer, is just a three-hour flight from Bradley Field



IDAHO RANCHERS have own airports. Visiting flyers can land on rancher's field, ride horseback into the mountains for hunting, or borrow a canoe for fishing in well-stocked mountain lakes

RESTAURANT on field is clean and modern. Food is so good that many airmen fly into Bradley for breakfast

City or Butte, Montana, for—no kidding, more than one pilot lands there after a flight of two hours without breakfast, just to whet his appetite for that superior food. The cafe operator being a private pilot himself must have a lot to do with it—as an experienced veteran of the battle he knows what the chow situation is on most airports.

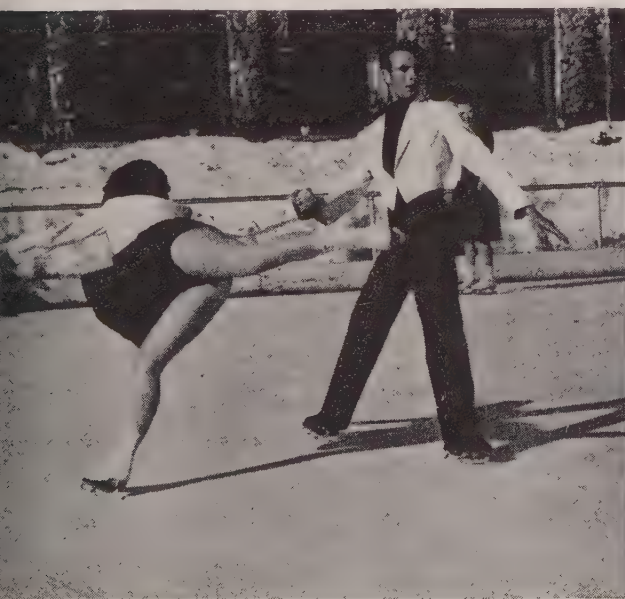
The field is two miles northwest of Boise and the bus fare to town is one dime, ten cents, that is.

But it is the country within a three-hour radius that sets Bradley Field in a class by itself.

And that's what most people don't seem to know about Idaho. They know that the rugged front of the Colorado Rockies is world-famous. The wide Wyoming plains and New Mexico's deserts are legends of song and story. Alpine ski runs are fabulous winter wonderlands. Foreign lands hold world-renowned awesome spectacles of lava—black, ugly impassible wastelands. There are mountain lakes in California that everyone seems to know about. Arizona silversmiths have produced objects of native art that string the fame of their mines in silver links from coast to coast. Tales of indians and cowboys emanate from Montana. But Idaho, the least known and one of the most beautiful states, is also the only state that contains almost everything scenic and exciting within its boundaries.

It is true, the Grand (Continued on page 52)

REGULAR VISITOR to Sun Valley is movie star Claudette Colbert, shown here on ski slopes, who won ski trophy



PLANE OWNERS with a yen for air travel and vacation would do well to stop off at Bradley, then fly from there to ideal spots that are in vicinity. There's hunting, fishing, skiing, etc.



Luftwaif

By ALICE ROGERS HAGER

BY the time Lt. Col. Dallas Sherman had sunk over \$4,000 and two years time into the ship which he finally christened the "Luftwaif," he was ready to change it to "The Sourkraut." Now, however, the Waif is a steady, dignified lady, ready to behave as a proper one should and a little snooty perhaps, because she is the only one of her kind in the United States. So Sherman decided to love and

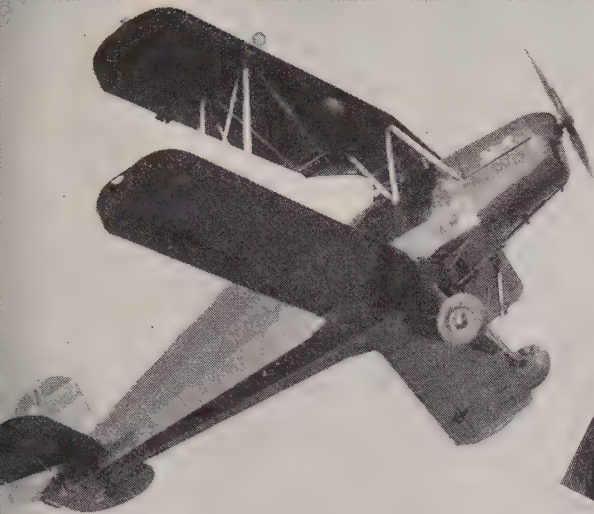


BORN 'N BRED in Germany. "Luftwaif is two-place Bucker-Yungman

take care of her in a manner befitting her station.

But the trials and tribulations of those two years almost wore out Sherman's pocketbook as well as his patience—and the Colonel is a patient and a stubborn man. He set out to find a lot of answers for private flyers who want to see freedom of the air come true, in spite of national borders—and he found them, even though he picked the hard way to go about it.

The Colonel is now a Mister, working for Pan American World Airways. But the beginning of the story of the "Luftwaif" goes back to the Potsdam



SPORT PLANE par excellence, the Waif is better than most planes in maneuverability, is tops for stunting

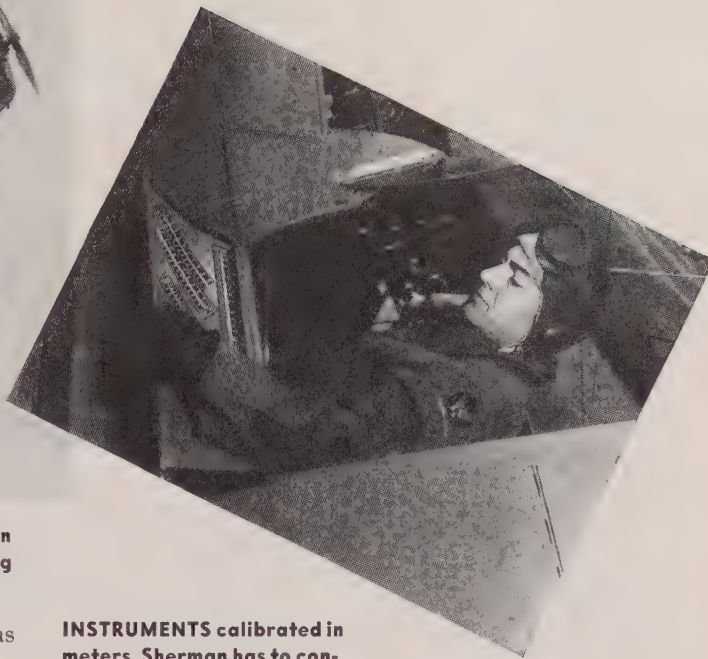
Conference, in August, 1945, when Sherman was still working for the Air Transport Command.

In either role, Army or civilian, Dallas Sherman is one of the easiest men to interview this reporter has ever met. He just sits back and the talk rolls out, salty, conversational and wise. The tale of the "Luftwaif," for this reason, is much better told in his own words.

"I believe in sports flying," he says, "and I believe that flyers should get around and not be tied to the ground by a lot of red tape. Somebody's got to do something about cutting that away in a lot of places before aviation can get going as it should. Being American and naturally ornery about being pushed around, I was damned if I wasn't going to see this thing through. I guess I got a little religion about this One World business. It's going to take a hell of a lot more than conferences to bring people together—all sorts of airplanes, for instance, big ones and little ones, and other things such as trying to give the other flyer as square a deal as you want to get yourself. I worked before the war clearing oil titles, so I had learned not to get hot under the collar when things took time to straighten out. I sure needed every bit of that in the case of the "Waif." But I had fun, too.

"We were in Berlin during the conference. We brought the President and the American delegation in and while they were settling the affairs of the world at the Palace, we hung around the airport just to kill time. There was a tremendous junk heap of blasted ships of all sorts lying around the field and I, along with the other guys, started looking into the mess. (Continued on page 56)

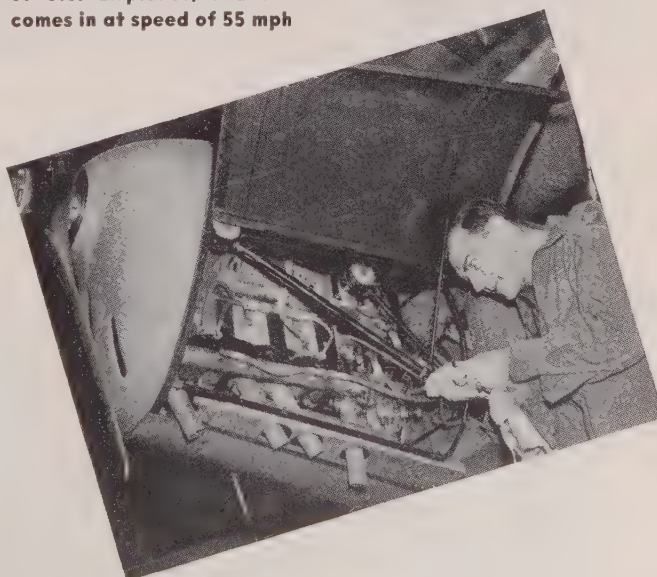
LUFTWAIF is powered by four-cylinder air-cooled inverted Herth. Ship cruises at 100 mph, dives at 225



INSTRUMENTS calibrated in meters, Sherman has to consult conversion tables he has pasted inside cockpit



TAKE-OFF and climb of Luftwaif is not as good as that of U.S. airplanes, and she comes in at speed of 55 mph





BROOKLYN DODGERS football team traveled via United Air Lines' Mainliners during past season of Pro football

Sports Take The Skyroad

ST. MARY'S GAELS, one of West Coast's top teams, flew to New York in a "Connie" to meet Fordham

By **J. DAVIS SCOTT**



SKULL PRACTICE high in the sky (below), en route to California, gave the Philadelphia Eagles Pro team

WINGS are being added rapidly as standard equipment for America's sports. The venerable, once highly difficult problem—traveling time to and from rival fields—is literally flying out of the window.

Today, thanks to the necromancy of winged transportation, the University of Hawaii basketball squad leaves the island, plays a game in New York Madison Square Garden and is back in Honolulu all within a little more than a week. Los Angeles and

that "something extra" that helped them win games. Coach Neale outlines plays as they appear on screen.





ALL AMERICAN Dodgers, playing in Buffalo, defeated the Bisons. Reduced travel time kept team in better shape

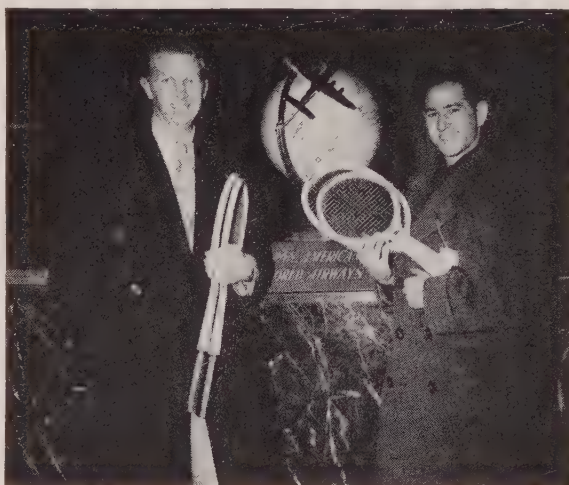
New York are virtually next door football rivals as far as the airborne teams of the All-America Conference and the National Professional League are concerned. The New York *Yankees* this past spring toured the diamond circuit in their own airliner. So did the Boston *Red Sox* and several other big league baseball clubs.

Because of the comparative ease of travel by air, Havana, Cuba, has a team represented in the Florida International Baseball League. Last winter an American amateur tennis team made an air tour of Latin America and spent more time than ever in each country. Hockey teams play in Canada one night, then fly to New York or Boston to resume their murder-on-ice tactics the next night. Last fall, one of the Pacific Coast professional football league's five teams was able to play in Honolulu every weekend. And so it goes in the pro sport world.

BASEBALL DODGERS' Prexy Branch Rickey, being an able pilot, hops all over the country in his club's Beech



TENNIS STARS Donald Budge (left), Bobby Riggs flew to Johannesburg, South Africa for series of games

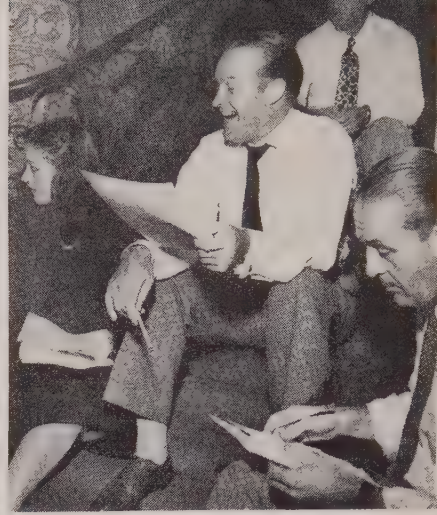


GOLF CHAMPION Sammie Snead won British Open last year, then flew to Kansas to enter Kansas City Open





BOSTON BRAVES baseball team joined with others in the league in using nation's airlines for game travel



RADIO-SCREEN STAR Bob Hope is one of staunchest supporters of air travel

Many colleges, who believe students should pass exams as well as footballs, now fly their teams and save three to four days per game for study instead of travel. Skiers whiz down snow-clad New England and Canadian landscapes within two hours after leaving New York's La Guardia Field. Hunters and fishermen no longer have to wait until their favorite season opens in their own states—any field or stream where game abounds is just a few hours away. An American golfer can win a title here one week and be battling for another crown in Great Britain the following week. Name any sport of any season and you'll find entire teams, carrying full gear, flying from point to point.

This transition from prewar bus and train travel of sports squads to a widespread acceptance of air travel has come so swiftly that few have noticed it.

About a year ago sports editors found the news that this or that team planned to go by air worthy of headlines. Today the same event gets little mention. One weekend last autumn no less than a dozen Pacific Coast collegiate and pro teams flew to the scenes of their games. In other parts of the country it was the same, causing the New York *World-Telegram's* Sports Columnist Joe Williams to remark, "It appears aviation has come to stay."

An airminded gent named Eddie Rickenbacker foresaw all this, and said so, back in 1929 . . . but it really took the war to make his words come true.

"There'll come a day," Captain Rickenbacker told his friends one hot summer night in a Cleveland hotel in '29, "when all your sports teams will do their traveling by air." But no one who heard him expected his prediction to come true—not within the next 50 years anyway.

The war made our sports teams airminded. And it wasn't, in many cases, a decision of their own choosing. Sports were an important part in the training of our nation's fighting men. Nearly every camp or base sponsored a team in practically every sport. These teams included plenty of big names—

like DiMaggio and Feller and Williams—because plenty of big names were in uniform. In khaki or blue they were still big attractions, wanted everywhere. Other camps and bases, with equally as many big names, issued challenges. But usually the other base was many miles away—and in wartime there just wasn't time for teams to go cavorting about the nation in trains. In fact, there just weren't enough trains either—but there were enough airplanes.

In the service one didn't protest about flying. The officer coach merely posted an order, "All players assemble at airfield at 10 A.M.," and you were there. A lot of athletes who had never flown before began to spend a part of every week in the air. They found the airplanes cut their travel time to more than half and left them more energy for whatever legal mayhem they wanted to perform at the rival field. The players found they liked this kind of travel—and for the schedule makers, air transportation was the answer to their prayers.

One of the flyin'est wartime coaches was "Sleepy Jim" Crowley who tutored the North Carolina Navy Pre-Flighters. When the war was over and Jim took off his commander's gold braid to become the commissioner of the All-America Football Conference, he found the airplane the solution for the formation of a league which would link the East and West Coasts. His contract with United Air Lines, providing for the travel of players of the eight clubs, their families, baggage and equipment to conference games, exhibitions, etc., in 44-passenger, four-engined Mainliner 230's, cost more than \$250,000 and the biggest charter agreement in airline history. "This is the opening wedge," Crowley declared when the contract was signed. "By utilization of airliners the entire nation will be given the opportunity of enjoying the perfection that professional football has to offer." Judging from the way the All-America loop packed in the fans for games in cities like (Continued on page 60)

AIR-BUS

By BOLLING BRANHAM

CONTACT!" cries nine-year-old Gordon Lunsford, Jr., each school day morning about 8:45 A.M., as he presses his feet on the brake pedals of the *Cub Trainer* and stares out at the red mud landscape in the heart of Cobb County, Georgia.

Sometimes a bright-eyed young brunette housewife swings the prop, and sometimes it's papa who does the job. Then when the motor sputters to life, the housewife makes herself comfortable in the pilot's seat, looks back to see if Gordon, Jr., and Richard are safely buckled in, and takes off.

The little yellow airplane climbs easily above the muddy roads and bogged-down traffic below and swings on a northeast heading. Five minutes later and five miles away, on the new grass of Pete Davison's field, the two young Lunsfords lift themselves and their schoolbooks out of the *Cub*, wave goodbye to mama, and walk across the road. They are sitting in their classrooms at Mount Bethel country schoolhouse at 9 A.M. Mrs. Lunsford takes off for home. When school lets out in the afternoon, she is back again waiting for them.

The mama and the pilot in this case is Mrs. Gordon Lunsford who, with her husband, operates a small private airfield and flying school far back in the red mud heart of Cobb County. By road, the airfield is about 25 miles from metropolitan Atlanta, and only six from the county seat of Marietta—but when part of that road is Georgia mud—well!

"And anyway the school bus comes by at 7 o'clock," Mrs. Lunsford says, "and school doesn't start until nine."

Mr. Lunsford has logged 3,000 hours, flying at intervals since 1928. Mrs. Lunsford has been flying for three years, and has logged about 1,500 hours, plus getting commercial and instructor ratings. She started ferrying the kids to school last fall.

The daily arrival and departure of the air-borne school-troopers created quite a stir among the other students at the rural Mt. Bethel nine-grade school, but Gordon, Jr., and Richard now seem to feel it's the most natural thing in the world.

"Already my nine-year-old can handle the stick well," Mr. Lunsford remarks.

And no one is more convinced of the utility of the airplane than Mrs. Lunsford. She estimates the cost of a week's operation of the School Ferrying Command costs a dollar for gas and oil. ✈



SCHOOL-BOUND, Gordon Lunsford Jr., 9, and Richard, 6, get air ride with Mrs. Lunsford at Cub's controls



AIR TRIP to school takes about 5 minutes. Mrs. Lunsford lands plane in farmer's wheat field near school (below), then flies back to pick up the kids after school



WRONG PROCEDURE



FORCE

By LIB and WIL BIGLER

IT STILL happens. Instructor and student returning to the field after an hour of airwork. Student at the controls, feeling pretty good about stalls. Instructor, suspecting slight cockiness, cuts the throttle to see if student remembers about forced landings. To their mutual surprise, engine cuts out completely. Bubble in gas line, possibly.

Or Pilot Gluskin, in his new "Superkite," takes off practically contact and flies over the mountains to see Aunt Hattie. Hardly a spot to set down on them hills. And then, too late to turn back, the ceiling comes gently to rest on the hilltops.

Or a passenger who seemed normal at take-off time suddenly manifests homicidal tendencies jokingly cutting throttle.

Forced landing!

Engines and aircraft are more dependable every year. Maintenance standards and regulations are kept abreast of the latest safety information. But a few of the 400,000 private planes predicted for 1955 will be landing unexpectedly in pastures, beaches and roads.

The possibility of forced landings, however slight, is one big reason for precision in flying. It's the best reason there is for perfecting spot landings, crosswind landings and slips. Like a parachute jumper, when the real thing comes along you've got to do it right. Of course, you're one on the silk-hitter. You can practice.

This is not bogeyman talk. Lightplanes have been landed in swamps, treetops and dime-size fields without personal injury and with little or no damage to the aircraft. It's all in knowing how.

You learned how, but chances are that it's been months or even years since you've exercised your knowledge.

The only rule for forced landings is safety, and it is generally conceded that your neck and your passengers' (and those of any innocent bystanders) are the first consideration. Property comes second. That's the airplane and the cattle and chattel of Mr. Innocent Bystander. There may be some disagreement about this order of precedence between

CONFUSED PILOT follows no forced landing plan. He makes tight turns, picks out a field and then changes his mind, stretches his glide, and lands against a fence.

LANDINGS

You and the owner of the north forty you have just introduced to the Air Age, but you will be in better shape to argue about it if you have observed that priority.

Four factors will determine the success of your unscheduled landing.

I. *Wind*: All you can do about it is to know where it is and about how fast it's blowing. The footloose zephyr is no respecter of hours in a log-book and will often shift after you take off, whether you have 50 hours or 500. In both local flights and cross-country you should watch the direction of the wind by observing smoke, trees, grass and the neighbor's clothes-lines. Do this and keep on doing it until it becomes automatic. On a constant heading, groundspeed and drift, checked with watch and map, are the most reliable computation.

It isn't always feasible to make a forced landing into the wind, though it's certainly desirable. Insufficient altitude, lack of a suitable and accessible windwise field, or ground obstacles may dictate a crosswind or even a downwind landing. The best field may slope downward into the wind, in which case you must do a quick mental juggling act to decide whether an uphill-downwind landing is not more likely to save you from running out of pasture.

II. *Terrain*: It doesn't take a Rembrandt to tell a forest from a ploughed field, but the colors of the land are a pretty good index to the type of surface. Don't trust a lush green field if you can get onto one that's more on the yellow or tan side. They vary with the season, of course, but the greenest ones are often so damp and soft as to make a take-off impossible, even if you don't nose up on landing. A newly ploughed field should be avoided for similar reasons; if you must use it, don't go agin' those furrows.

Forest clearings are likely to be full of stumps, as well as difficult to approach. Beaches are fine when hard-packed by the waves; soft sand is another thing altogether. (See *Beach Landings, Skyways, June*.) Roads are even better, barring wires, fences, trees or traffic.

If you're in a position to be choosy, don't elect to cut a swathe through (Continued on page 50)

GOOD PILOT follows a good pattern. He establishes normal glide, picks out best field and does not change his mind, makes good approach and lands with furrows

RIGHT PROCEDURE



LONDON TO NEW YORK

IF I were preparing a "Staff-paper" on British Air Transport 1946-1956, I think the "strategic survey" would divide itself up nicely into three pigeon-holes:

1. Interim war/peace period (1946-1950)
2. First jet period (1950-1955)
3. Second jet period (1955-??)

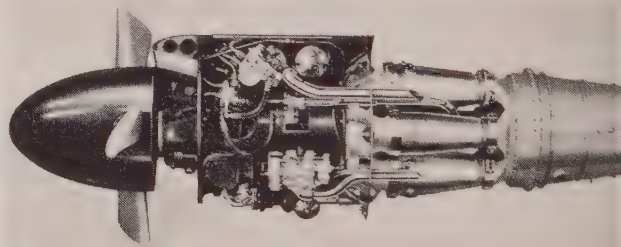
(These dates are necessarily somewhat elastic.)

The first pigeon-hole covering the present interim years, can be dealt with quickly. In the big airliner class Britain is at this moment having to rely mainly on American war-developed transports such as the Douglas DC-4, the Lockheed *Constellation* and the *Stratocruiser*, backed by British interim machines, like the Avro *Tudor I* and *Tudor II* and the Handley Page *Hermes*, while pressing rapidly on with development work for the eras of pigeon-holes 2 and 3. This situation, so often deplored in the House of Commons, is an inescapable result of the war, when Britain, by agreement with the United

States, packed up work and design for air transports and concentrated on warplanes.

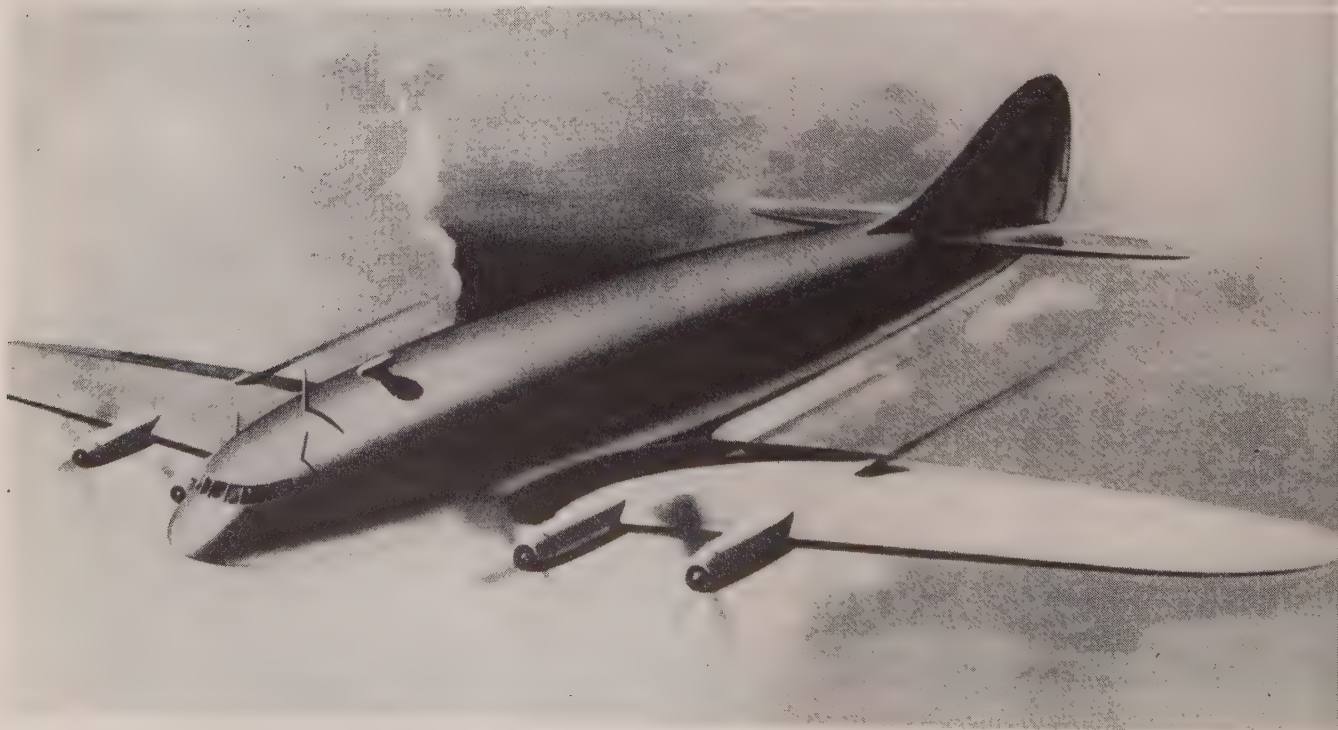
We must remember that it still takes five years to produce a big airliner (the *Constellation* was begun in 1939), so British industry cannot hope to challenge the present big American prototypes until 1950. And that is really all there is to be said about that. In the medium and feeder class of aircraft, Britain has, since 1944, put herself on top of the world. The Vickers *Viking*, the Miles *Marathon*, the Airspeed *Ambassador*, the De Havilland *Dove*, and the Bristol *Wayfarer* are the best of their class anywhere. The big overseas market orders for them (especially from South America, a natural for this type) confirm this view.

MAMBA is the lightest propeller-turbine in advanced tests, 750 lbs. for 1,250 equiv. hp., and (below) sketch of Armstrong-Whitworth airliner with four Mamba's



By CHARLES GARDNER

*Air Correspondent of the British
Broadcasting Corporation*

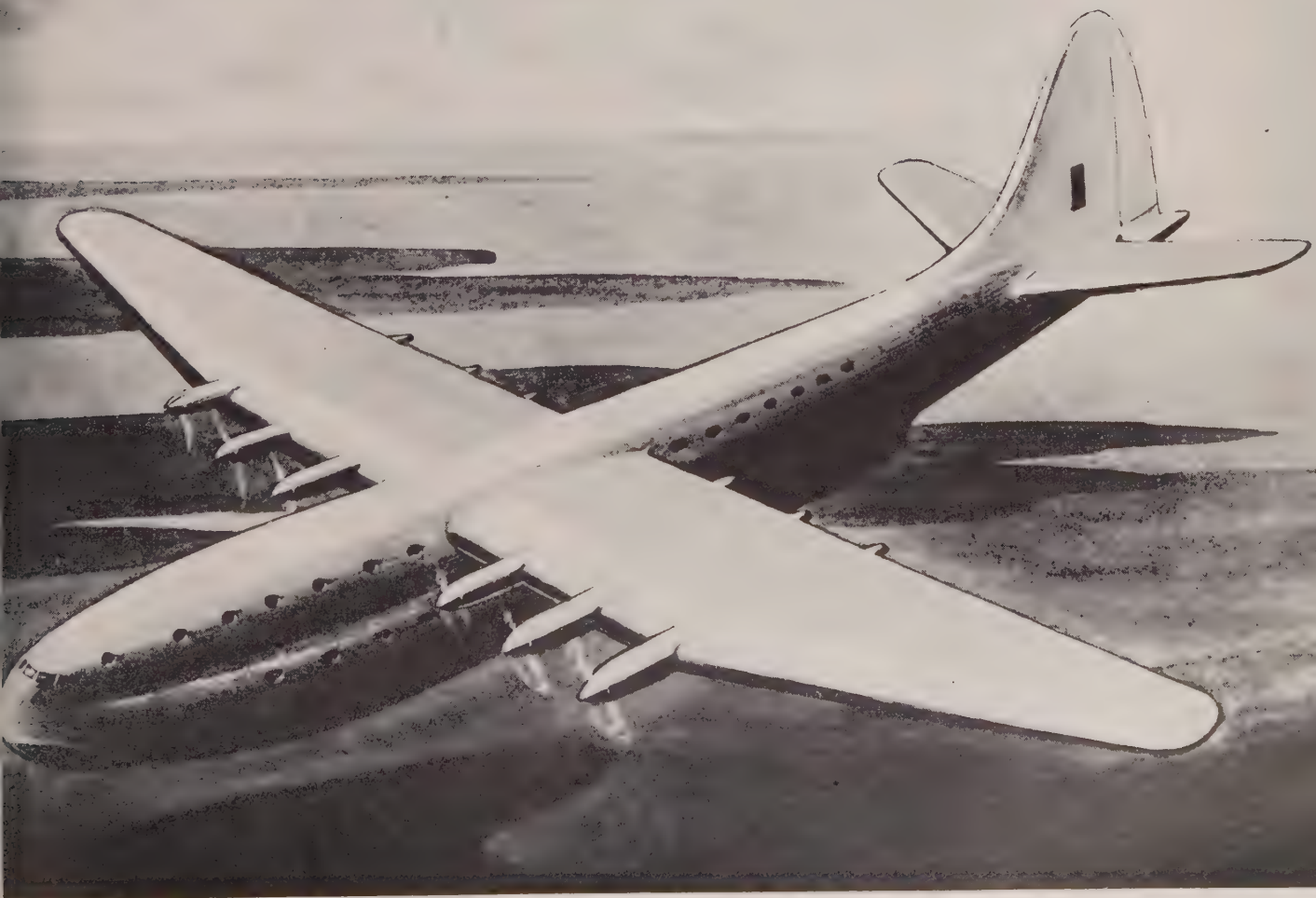


VIA JET

It is, however, to the two jet periods of 1950 onwards that Britain is really looking. She started this postwar aviation business a number of laps behind America, but was confident that her jet "know-how" would bring her up level within five years. There is no reason to modify that view.

It is the firm opinion of the British scientists and industry that Britain has something of a lead over the U.S. on aircraft gas turbines of all kinds. That is no blind optimism—but a considered belief reached after an exhaustive study. Air Commodore Frank Whittle—whose pioneer engine was taken to America under armed guard during the war, and who is this year's Guggenheim medal-holder—is himself of this opinion. During the summer of 1946

TEST-RIG for the powerful *Python* turboprop (more than 4,000 equiv. hp.), and (below) sketch of SR/45 flying boat with 12 *Pythons* or other turboprop-jets



he made a tour of the United States in which he visited several of the jet factories and establishments, and he said last winter that he estimated Britain's lead was "at least one or two years, possibly more." Glenn Martin has since confirmed this opinion in an important statement before the Interstate and Foreign Commerce Committee of the U.S. Senate. On the other hand, American engineers are confident that the present gap is only temporary, and that new designs may catch up with the British. In any case most of Britain's air-transport eggs have been put in the jet-basket, while the Government and the operating companies keep their fingers crossed. The first jet-period (1950-55) is really an overlap period

in which there will be two types of gas-turbine powered aircraft: (1) The airliner which has already been proved with piston engines, adapted for some form of jets, and (2) the airliner of new design, equipped with gas-turbines driving airscrews (turboprops). Some of these may possibly be converted to pure-jet aircraft later on (turbojets). However, there are sufficient differences in the design of aircraft with turbojets as compared with those for piston engines or turboprops as to make such conversion doubtful. It is more likely that the most successful pure-jet airliners will be designed as such from the ground up. This brings up an interesting dilemma, in the solution to which there are (*Continued on page 66*)

Type	Weight (lbs.) and Layout	Engines	Cruising Speed (mph.)	Max. Speed (mph.)	Range (miles)	No. of passengers	No. ordered	Approx. date of first flight	General Remarks
Avro Brabazon 3 (Tudor II replacement)	100,000 Low wing. Retractable Tricycle	— 4 prop-jets of a type not yet released.	?	?	?	—	2 prototypes-but possibly big order later.	1948/9	New Design
Airspeed Ambassador II	47,500 High wing Retractable Tricycle	4 Napier Naiad prop-jets of 1,500 hp.	302 at 50 per cent. power	—	Up to 2,000 miles	20 to 40 according to range	Prototype order practically certain	1948	Prop-jet version of the Ambassador I.
Armstrong Whitworth 55 (Brabazon 2B)	36,000 Low wing Retractable Tricycle	4 Armstrong Mambas of 1,250 hp.	320 at 80 per cent. power	360	1,035	24 to 31	Prototype. A candidate with the Vickers Viceroy for European routes.	1949	New design for Continental work.
Bristol Brabazon I	285,000 Low wing Britain's biggest landplane	8 Bristol Proteus of over 3,000 hp.	350 at 35,000 feet.	—	5,000	72 (night) up to 200 (day). Probably 80 on the Atlantic trip.	Five	1948/9	First model will have piston engines and the rest prop-jets. For N. Atlantic
De Havilland 106 (Brabazon 4)	— Swept-back wing tail-less design	4 D/H pure jets of unspecified type	550 at 40,000 feet.	?	Enough for N. Atlantic service.	30	Prototype.	1949	Britain's boldest experiment of which the DH 108 was a "flying model".
Handley Page Hermes	82,000 Low wing retractable tricycle	4 Bristol Theseus of 2,290 hp.	297 at 72 per cent. power	360	2,000	52	None yet. Probably an order for five will be given soon.	Late 1949	A prop-jet version of the Hermes IV for Empire routes
Miles Marathon	16,500 High wing retractable tricycle.	2 Armstrong Mamba, of 1,250 hp. or Rol's Darts of 1,200 hp.	260 at 10,000 feet.	—	900	18	25 ordered	1948/9	Feeder line & internal. 25 ordinary Marathons with pistons have also been ordered.
Saunders Roe/45	290,000 High wing Flying boat Retractable wing tips	12 engines unspecified	300 plus	—	5,000	100 night passengers on two decks	Three but probably larger order to follow.	1949/50	Britain's biggest flying boat. For Empire routes
Vickers Viceroy	? Replacement for Vickers Viking.	4 Mambas or Darts	—	—	—	—	Prototype	1947	With the AW/55, a candidate for Continental routes.



FISHERMEN REST at timberline to conserve energy needed to reel in this inviting mess. View is worth a breather

MOUNTAIN MECCA

***A man wanted an airport
at his favorite vacation
spot . . . so he built it***

A spring-fed mountain lake full of trout, log cabins with fireplaces and plenty of logs to burn, and doctor's orders to take it easy for a while—what more can a man ask? George McRoberts is a particular man. On top of all that, he asked for an airport—and got it.

The story started in Oklahoma City, one March day in 1946 when George McRoberts visited his doctor. Overwork and a bad case of sinus were the doctor's cue to order George to find the highest spot in Colorado and plan to stay awhile.

Three weeks' traveling time later, George arrived at Buena Vista, Colorado, 18 miles east of the Continental Divide. Here the Divide is formed by, what is known as the Collegiate Group—magnificently beautiful Mt. Harvard, Mt. Princeton, and Mt. Yale, all towering far above 14,000 feet. Because of the varied attractions of the area, Buena Vista's winter-time population of 900 is multiplied many times in the summer, with vacationers flocking in from all parts of the country.

After spending one season there, George decided it was time something was done about one natural resource that up to then had been left untouched. The town owned 360 acres at the southwest edge of its limits—360 acres without a wrinkle, and a town without an airport! George got himself appointed a committee of one by the town council to build an

airport for aerial tourists. That was last summer.

This summer the Buena Vista airport, 7,955 feet above sea level, has four 300 by 4,000-foot runways, well graded, with 10 to 20 inches of granular surface suitable for all-weather operation. Aviation gas and oil are available from tank truck, and there are both telephone and taxi service. "Buena Vista" is painted on the roof of the rodeo grandstand, for the benefit of aerial jockeys. Kind of weather it gets during the summer makes hangar space unnecessary.

The flying sportsman will find something at Buena Vista when he arrives this summer that he has been seeking for a lifetime. There are lodges, camps, resorts, and even log cabins with fireplaces located up in the mountains beside a lake or a mountain stream. For instance, Rainbow Lake, eight miles west of Buena Vista in Middle Cottonwood Canyon, has log cabins dotted all along one side. Then there are Cottonwood Lake in the South Cottonwood Canyon, the three Cottonwood Streams, Arkansas River,

and Texas Creek. Above the timberline, Bear, Clear and Harvard Lakes abound in trout.

Air tours in groups have been planned for the summer months, and no visitor is unexpected. An airplane, a fly rod, and the desire, will go a long way. And George promises "We'll help you pickle your engine when you arrive, because when you see what's up here, you'll want to stay!"

NOTHING LIKE an early morning take-off to whet appetite for fat rainbows



Chumming in the



AIRMINDED ANGLERS from all over fly to the Lee Airport at South River, Maryland, leave their ships in good

By DONALD CARPENTER

Captain, USMCR

IF you own an airplane or can rent one and want to go fishing, there's a fishing hole over 100 miles long that'll offer you a choice of over a dozen kinds of denizens of the deep. Annually, more than a million anglers fish there . . . in Chesapeake Bay.

Recently a group of air-minded watermen on the Chesapeake came up with an idea that is paying off for them and for the many fishermen who've taken advantage of it. It works this way:

Suppose you and the missus decide that a mess of fish and the sport of catching them is just what the doctor ordered. You wire the South River Fishing Fleet, then stow your tackle aboard your plane,

and take-off for the Lee Airport at South River, Maryland. And whether you live in Cleveland, Philadelphia, New York or elsewhere, the air trip is only a one, two or at the most a three-hour hop.

When you put your plane down at Lee Field, an attendant unloads your luggage and hands it over to a boat captain of the South River Fishing Fleet who's there with his car.

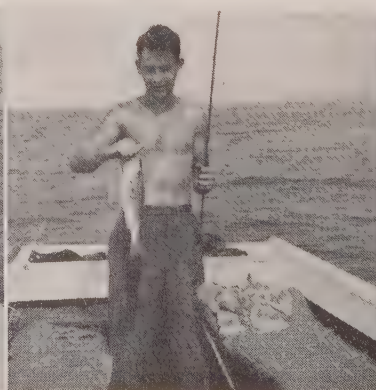
You get aboard the car and by the time you've lighted your cigarette and taken a puff or two, you're at the dock . . . or better yet, at the South River Inn, a sportsman's headquarters for a quick one before you shove off for the fishing.

At the dock, the boat that'll waft you out to the fishing grounds is all gassed and ready to go. A capable guide handles the helm and in a short time you're out where the fish are waiting to be caught

COPY DESK forgotten, a group of Scripps Howard newsmen go fishin'



FUN with a fly rod . . . and a pan-size striped bass for the prize



NIGHT fishing is fun . . . and a popular pastime with the Bay anglers



CHESAPEAKE



en head for the Chesapeake where the chumming is good

and where storms that sometimes come up never spoil the angling.

When your fishing junket is over, the catch is cleaned and packed, and you, your wife and the fish are delivered back to the airport and your plane, all set for the easy hop home. The betting is, however, that you'll have so much fun in one day that you'll arrange to stay overnight at the South River Inn and have another go at it on the morrow.

If your ship is equipped with floats, the trick is even more simple. You can land right alongside the dock or pier from which the fishing craft leave, and then just step into the waiting boat. The dock lies in water protected from all winds, so your plane is quite safe sitting it out while you try your luck with rod and reel.

But that's not all this (Continued on page 67)

TOP SPOT for Chesapeake fishing is the tide-rip around the 74-year-old Thomas Point lighthouse near South River



AIRVIEW of the Lee Field at South River shows runway E/W. Hangar and office are at the east end of strip



AUTHOR Carpenter handles a mean rod himself. Here he shows (and proudly, too) a recent sizeable catch



GIRLS also have fun fishing in the Chesapeake. These girl anglers caught this good-sized crocker on light tackle



LIVESHIMP is the bait used to catch rockfish. Ed Post, of D.C., got these in a few minutes. Other angler got tired



AUTHOR PRICE and his photographer, Miss Arnold, took off from Abe Steppel's Hanover, N. J. airport in an L-5

Flying Week-End

ASK any one of America's 45,000 lightplane owners what his biggest headache is, and he'll tell you a story of the strange dilemma that doggedly restricts the enjoyment he gets nosing at will into the great blue yonder. Very simply, it is the problem of getting to where he's going—once he's already there.

He will tell you at great length how a plane can fly above the worst of the traffic snarls, how commuting to his week-ends by plane can save him from jammed-up ticket counters, assorted changes between subways, taxis, busses and trains. And he'll tell you how much time he can save en route.

But some time he's bound to slip and let out with the story of how he flew down to Aunt Sarah's for



By WM. A. PRICE

a Sunday, only to get stuck at the nearest airport 15 miles away with no means of getting from the field to Aunt Sarah's.

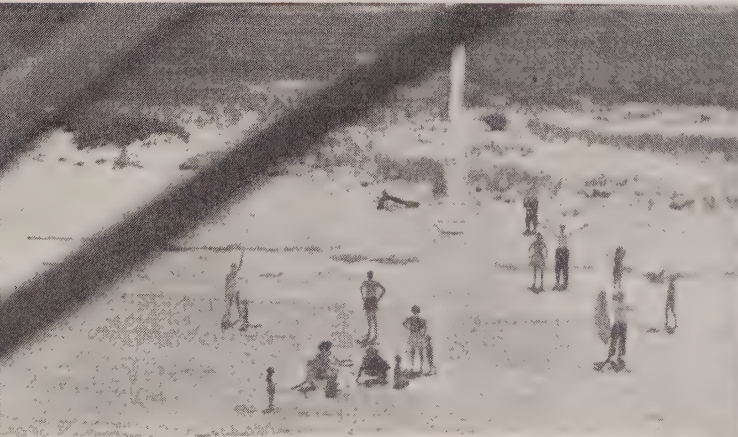
The problem right now is that of John Q. Pilot who takes off to the mountains in his little flyabout, only to find himself stranded at a backwoods airport, his host many miles and several headaches away. The out-of-this-world glow he has acquired flirting with the clouds on the way up dissipates with the coolness in the voice of his friend

on the other end of the phone, who insists, through clenched teeth, that he'll be glad to come pick him up. And furthermore, in the book on how to treat hosts, this sort of thing isn't even mentioned.

We were up against that very situation one Sunday. Our host lived on (Continued on page 68)

BEACH didn't look good for landing so author brought ship into pasture, then investigated beach on foot

PEBBLE PART of beach proved to be good for landing. Some air was let out of plane's tires 'fore trying it





MANHATTAN from an altitude of 2,500 feet looked like this to the flying week-enders in the Stinson L-5

FLYING PICNICKERS winged their aerial way over East River, Welfare Island and 59th Street Bridge



TAKE-OFF from beach Sunday evening called for careful look to be sure strip was clear of glass, etc.

Adrift in

By GENE LANDMAN

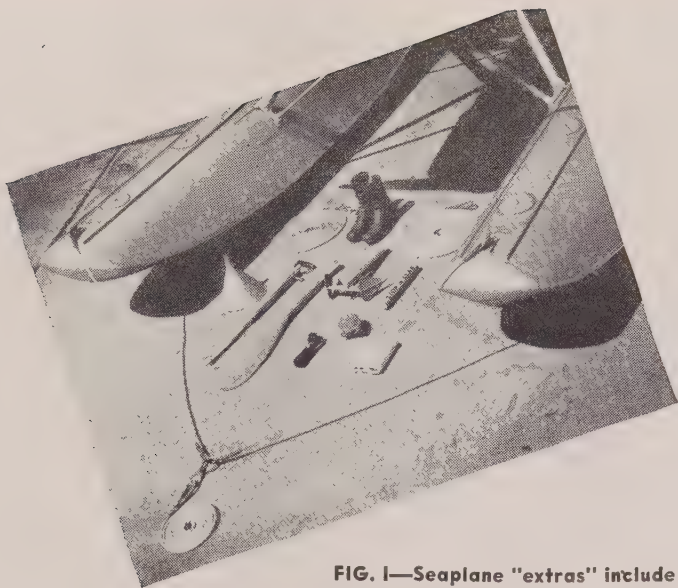


FIG. I—Seaplane "extras" include lines, pump, paddle, anchor, boots, flashlight, sponge, gas funnel, etc.

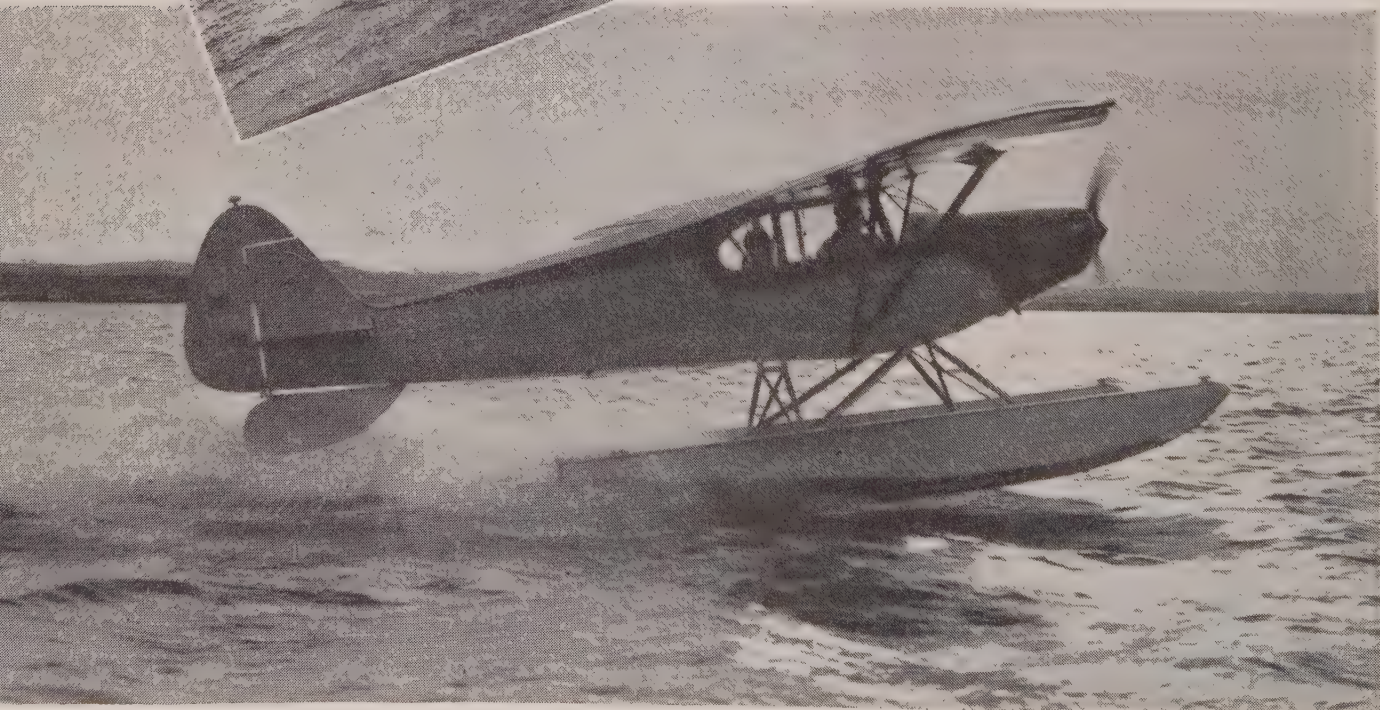
FIG. II—Wind was from left so in taxiing to take-off position, the stick was held full back, to left



THE three-place Piper *Cruiser* is a good passenger hoppin' seaplane or cross-country conveyance for three *if* the luggage is limited, and for two, with plenty of luggage. Admittedly, in any seaplane there are "extras" (Fig. I) such as a four-pound anchor, 15- and 50-foot lines, sawed-off canoe paddle, and a bilge pump. But it doesn't add up to very much extra weight. Having flown a *Cruiser* on floats from New York City to Miami and back, I'll vouch for this. The *Cruiser* has excellent characteristics for water handling . . . (I'll vouch for this, too), and it's especially noticeable the minute the pilot finds he has to contend with rather rough water and strong winds.

With a seaplane rating on which signatures were barely dry, this pilot stepped into a *Cruiser*, NC 92706, for a flight when wind velocity and water surface were about as extreme as they could be and still remain within safe operating limits. This first trial indicated the *Cruiser* would be a highly ma-

FIG. III—For good take-off in *Cruiser*, roll a little nose-high trim in on the stabilizer, engine at 2350 rpm



CRUISER

neuverable seaplane that could take a lot in its stride—some 50-logged hours later I could look back and realize neither winds nor tides had outwitted NC 92706.

The photograph which is Figure II shows the *Cruiser* taxiing away from the ramp at College Point, Long Island, on my first take-off in the ship. True to seaplane flying rules, the stick was full back (note position of elevators), and to the left to hold aileron into the wind (note position of ailerons . . . and the wind was from the left). Almost full right rudder was held to keep the plane from weathercocking into the wind, the seaplane's most reliable tendency. As with any sea-going plane considerable power (1500 rpm) had to be used to taxi the plane crosswind to counteract the weathercocking.

Turns with power in a seaplane can create capsizing possibilities due to the small amount of friction holding the floats on the (water's) surface, and the centrifugal force acting on the plane in a turn. It can best be compared to bicycling around a corner at "high speed"—the rider leans toward the inside of his turn to counteract the centrifugal force which would otherwise throw him and his bike off

FIG. IV—Stick full back and full throttle starts take-off run. Plane will not move fast

FIG. VII—In landing the *Cruiser*, the three-point, tail-low landing is cushioned if done right, not dropped in

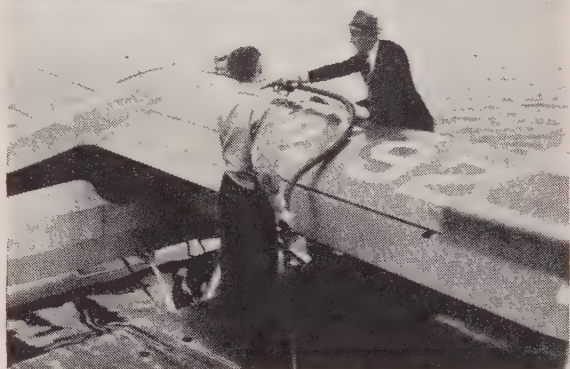


FIG. VI—Refueling *Cruiser* is no problem if fuel line is part of base's facilities. Otherwise, gas is funneled in

FIG. V—Suction on floats decreases, then with lift from wings, plane gets on the step

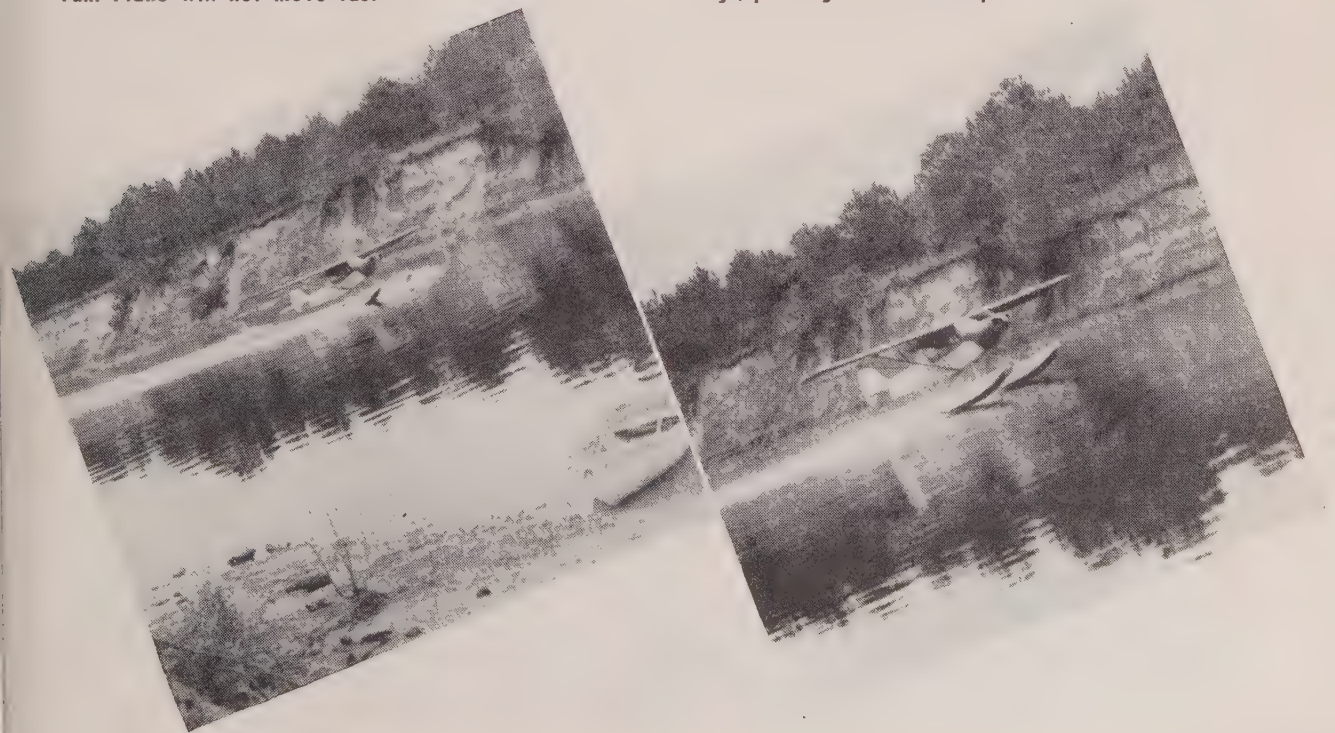




FIG. VIII—In docking, come alongside into the wind. When almost even with dock, let ship weathercock

balance on the outside of his turn. This centrifugal force tends to lower the wing on the outside of a turn in a seaplane—the faster the turn, the lower the wing. Wind or gusts, therefore, can get under the higher wing to force it higher still and with the aggravation set up by centrifugal force it could capsize the plane.

Holding right rudder and using about 1500 rpm you may be wondering, “How come the plane doesn’t turn to the right?” With more throttle to offset the wind from the left and with full right rudder, the plane would turn to the right (out of the wind)—but not easily in such a strong wind.

Fortunately all this can be offset by:—

1) Making all turns into the wind without throttle; and conversely, all turns out of the wind must be made with throttle;

FIG. IX—For ramp landing, make a straight-in approach, then gun ship up the ramp from three feet out



2) Holding aileron into the wind to force the upwind wing down;

3) Holding stick (or wheel) all the way back to increase the drag on the floats;

4) Appropriate use of rudder;

5) Appropriate use of throttle—successive spurts rather than prolonged full throttle keeps centrifugal force in a downwind turn to a minimum and besides it shortens the turn.

The two turns (into- or out-of-the-wind types) differ not only in use of power but also in turn radius. An into-the-wind turn is considerably faster and is a much tighter turn than an out-of-the-wind turn since the seaplane weathercocks like a weather vane on a spike.

On the seaplane there is a water rudder to assist in water taxiing. The water rudder on the *Cruiser* floats is attached to the stern end of the right float.



FIG. X—A bilge pump is used to keep the floats free of water. A 50-cent piece will open compartment

In the past the water rudder was usually on the seaplane’s left float (and very occasionally on both floats). The theory in back of right or left placement stems from torque in turns. Supposedly, the seaplane turns best to the left due to the assistance of torque (the slip-stream from the prop flowing back pushes the tail to the right, and the nose to the left). By placing a water rudder on the left float, theoretically, the pilot can count on a “best” turn to the left. By placing the water rudder on the right float, turns can be made as well to the right as to the left. Without entering into this argument at all, I’d like to pass along the word that as far as I am concerned the *Cruiser* responds in a highly acceptable manner to either right- or left-turn procedures—aileron into the wind, stick full back and use of rudder to right or left.

While on the subject (*Continued on page 7*)

SKY-HIGH SKOOTER

By DON DOWNIE

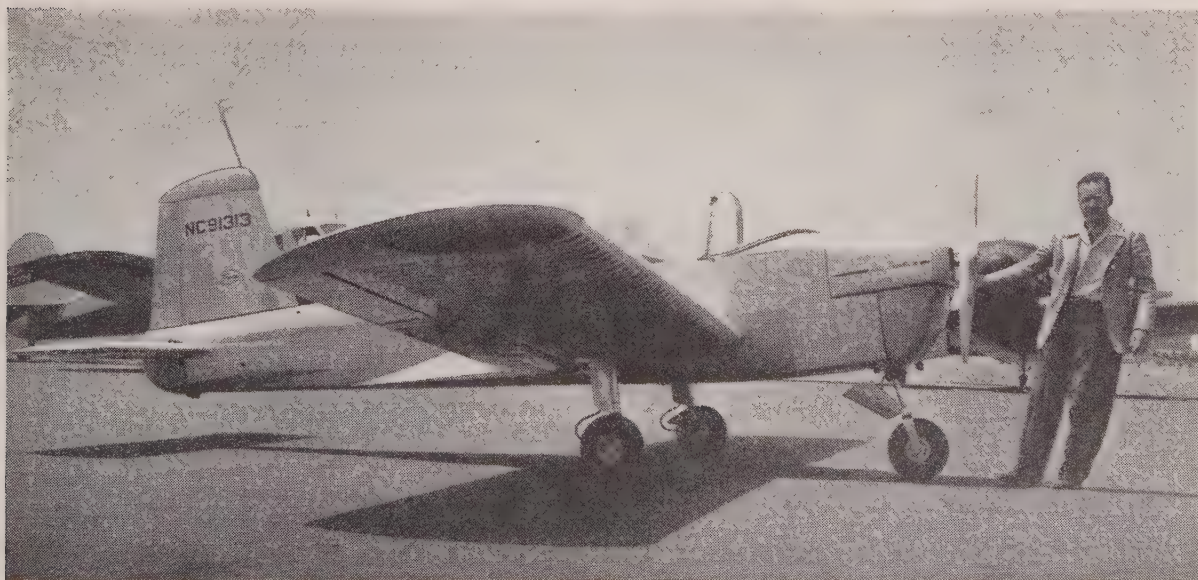
SO all good things come in small packages? Then meet Mr. Thorp's *Sky Skooter*, smallest of the licensed two-place planes in America today. In the same week that this pint-sized, all-metal puddle-jumper received its coveted NC, this SKYWAYS scribe was first of the press representatives to fly the newly licensed plane.

The Thorp *Sky Skooter* is tiny. The 25-foot wing span is two feet shorter than the old Culver *Cadet*. It weighs just 565 pounds empty, only 10 pounds more than the fabric-covered Ross *Sportplane*. It has a control system unique in two respects; there is only a single set of controls, and the plane can be flown satisfactorily without touching the rudder pedals in flight.

It's an unusual plane, but an honest little ship. The *Skooter*, according to ex-Lockheed designer John W. Thorp, was built with two main thoughts in mind, safety and low cost. The plane is non-spinnable and very easy to fly. Regarding costs, only 175 man-hours would be required to build the *Skooter* on a 10-plane-per-day basis, 125 man-hours at 30 per

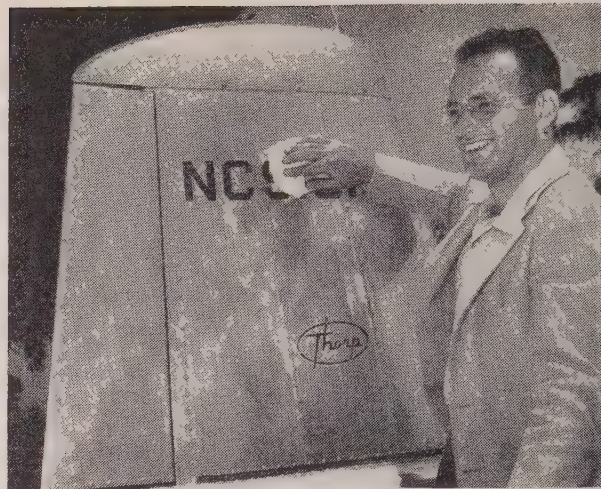


SKY SKOOTER, as shown in this flight shot, has large flap area. With full flaps, it lands at 45 mph. Ship is so light that Mr. Thorp (below) easily pulls it to ramp





HOW TO GET into the Sky Scooter is demonstrated by Mrs. Don Downie. Plexiglas door is part of canopy



PLANE'S DESIGNER, ex-Lockheed engineer John W. Thorp, uses pride and polish on his plane's new NC

day. Designers are sure that the plane, produced in mass production, would sell on the current market for under \$2,000. At present the price has been set at \$2,270 and 48 have already been ordered by personal friends of the designers. No sales program has been undertaken, at this writing, pending negotiations for large-scale manufacture.

From a pilot's viewpoint, there has been a whale of a lot of thought put into the design for the *Scooter*. Mr. Thorp is himself a pilot and, unlike many designers, flies his own planes. He has spent nearly 20 years in the aircraft-design business, graduating from the Boeing School of Aeronautics and later becoming head of its Engineering Department. The *Scooter*, his eleventh design to be built, was really started in 1931 when Thorp was working on a design of "a plane that people could afford." He was project engineer for Lockheed for the "Little Dipper" and the "Big Dipper." Vice President Bob Reedy was in charge of the Lockheed light aircraft program and most of the current members of the

Thorp company are former Lockheed employees.

"In reality, the *Scooter* is a scaled-up gas model rather than a scaled-down big airplane," advises Mr. Thorp. "The airfoil is the NACA 44-15, popular among model builders. The blunt, non-tapered wings and tail are a simple design and the short, high-speed propeller, turning 2800 rpm at full throttle, is similar to a gas-model design."

In appearance the *Scooter* is a conventional low-wing plane without strut bracing. The wing has a single spar and only four ribs to speed construction. The metal skin of the wing is corrugated, similar to the *Seabee*, to maintain rigidity of the airfoil. A rather large fillet is used at the wing root to insure a smooth flow of air over the elevators in slow flight and to make the wing stall properly. There is no need for slots, spoilers or other gadgets to assure a clean-breaking stall.

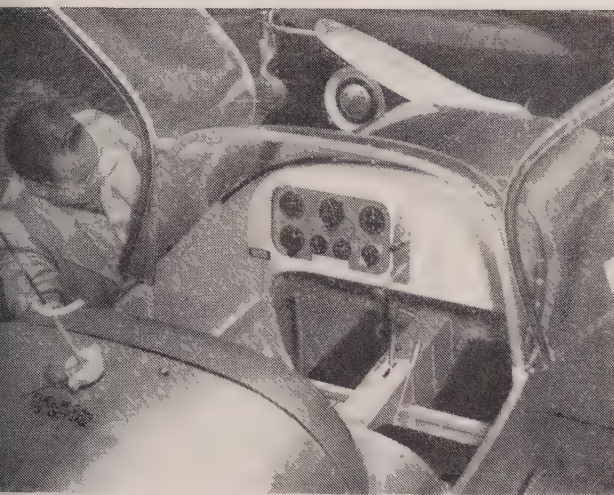
The single stick controls have ball-bearing torque tubes throughout. To achieve full elevator control at slow speeds, there is no fixed stabilizer. The

AUTHOR climbs into the Sky Scooter for a demonstration ride with Mr. Thorp at controls. Later, author flew it



TAXIING the Scooter, the rudder pedals steer the little plane. Note air speed tube sticking up from top of rudder





FEATURE of this two-seater is single stick control. The designer saved \$50 by not installing duals. Note panel



LIGHT WEIGHT of the *Scooter* is demonstrated here by Mr. Thorp who easily lifts ship off ground with one hand

whole elevator moves. Correct "feel" is obtained from an anti-servo tab along the full trailing edge of the elevator.

Ailerons are designed so that fully coordinated turns may be made without touching the rudders. Mr. Thorp calls his aerodynamic synchronization a "2 $\frac{1}{2}$ -control system." Differential drag is designed into the ailerons so that this smooth-turning effect is obtained without having the ailerons attached in any way to the conventional rudders. The rudder pedals steer the little plane while taxiing, but once the nose wheel extends fully, it is automatically disconnected from the rudders. The pilot does not have to fight the pressure of the nose wheel when using rudder, yet with its conventional controls the pilot may slip, skid or correct for crosswind landings, et cetera.

The non-retractable tricycle landing gear is a honey. The nose wheel is efficiently dampened so there is no tendency to shimmy. Pressure from the hydraulic brakes is distributed equally to both main

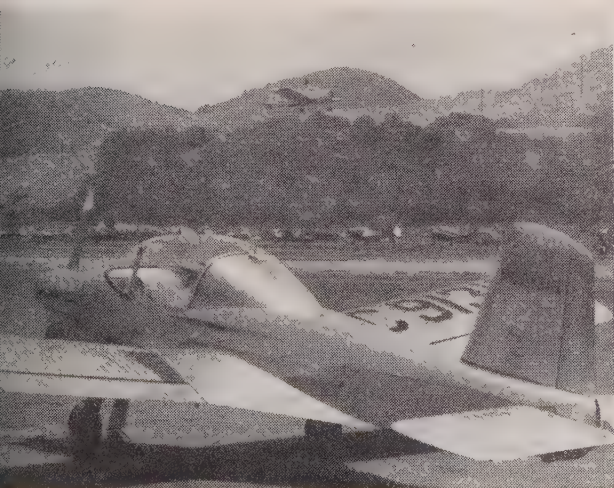
wheels from a hand brake mounted on the "keel" between the seats. Also on this central "keel" is the flap handle and elevator trim tab. Flaps take up the full trailing edge of the wing not used for ailerons. There is no need of a rudder tab since the thrust line of the engine is off-center to the right and down so that the plane will trim out the same with power or without.

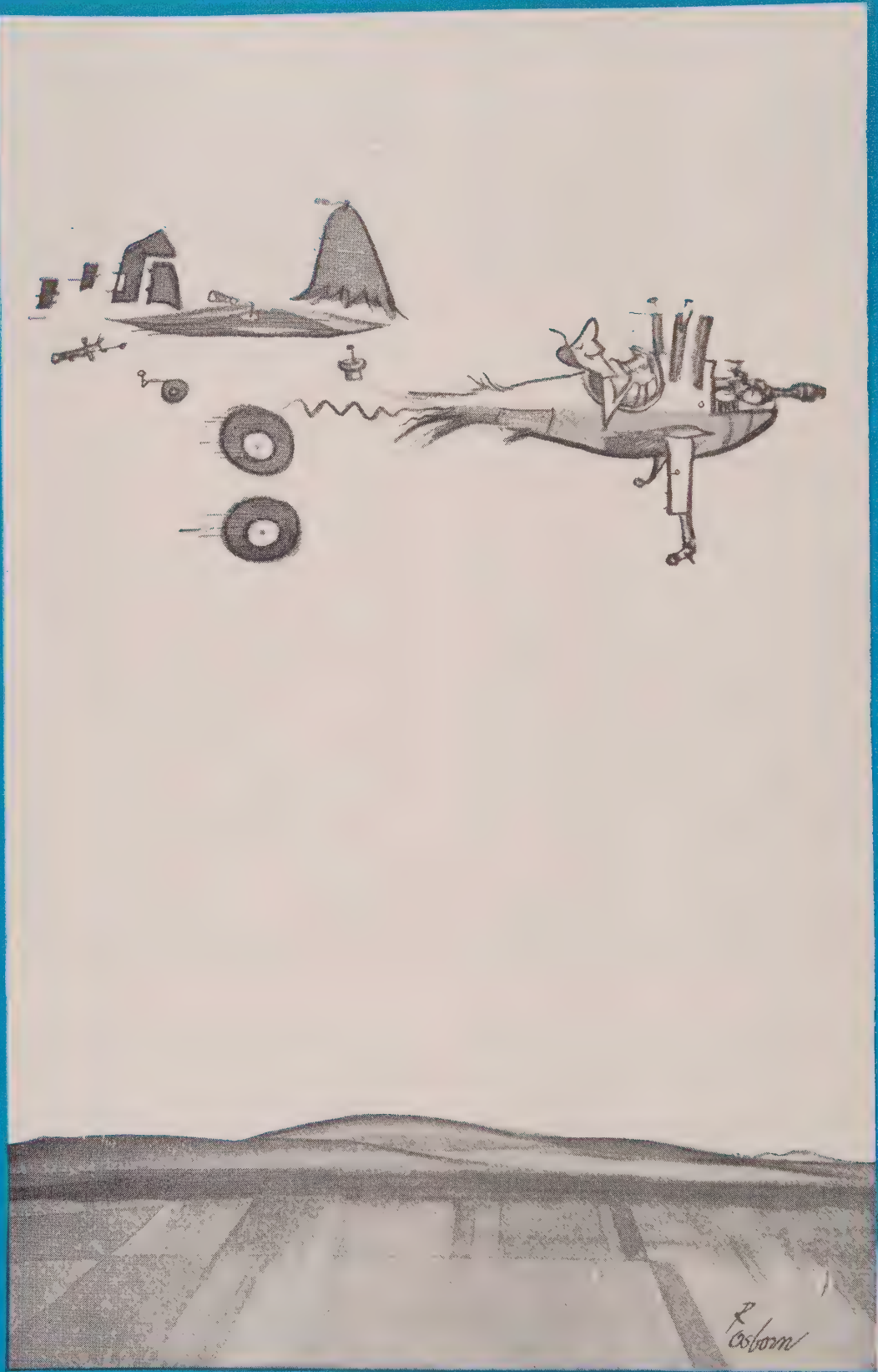
In demonstrating the newly NC'd plane, Mr. Thorp pulled it from the hangar at Whiteman's Airpark in San Fernando, California, without assistance. On the ground the *Scooter* may be pushed around easily by merely lifting the nose wheel free from the ground.

If you weigh over 250 pounds, the *Sky Scooter* may give you a little trouble. It isn't the easiest airplane in the world to enter. The two plexiglas doors that form the bubble canopy open forward. The *Scooter* is only 5 feet high at the top of the canopy, so the step up on the wing and over the trailing flaps really isn't (Continued on page 71)

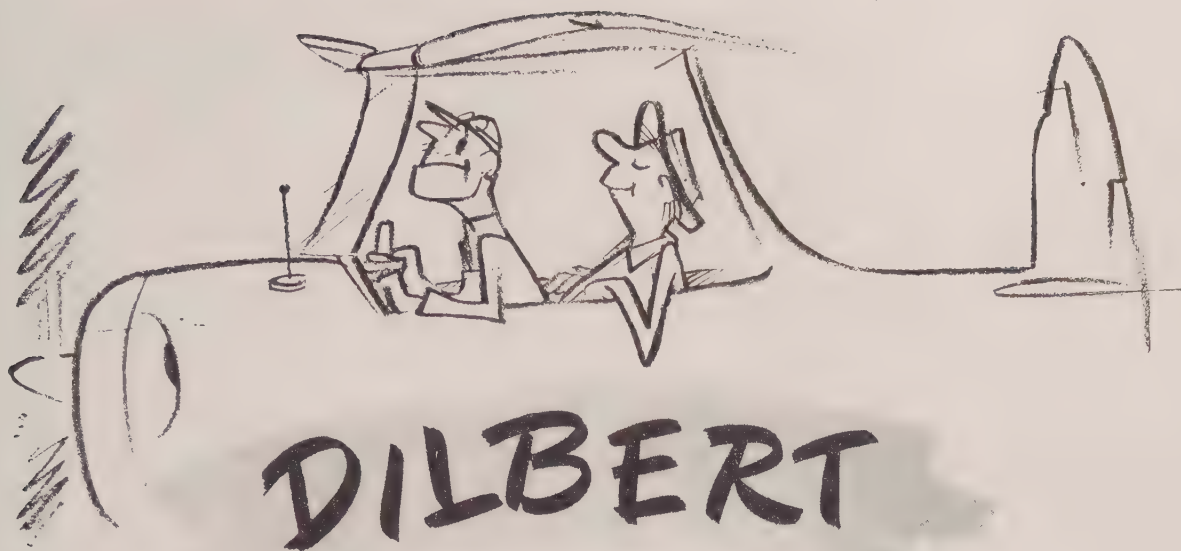
GROUND SHOT of the plane (with second one taking off) shows anti-servo tab along elevator's trailing edge

SKY SKOOTER takes off in an easy run of slightly over 250 feet from standing start. Visibility is very good





Dilbert failed to check his plane . . . and now they can't find Dilbert



By S. H. Warner and Robert C. Osborn

Preflight Inspection—So you want to learn to fly. Fine! Let's sit down and talk it over.

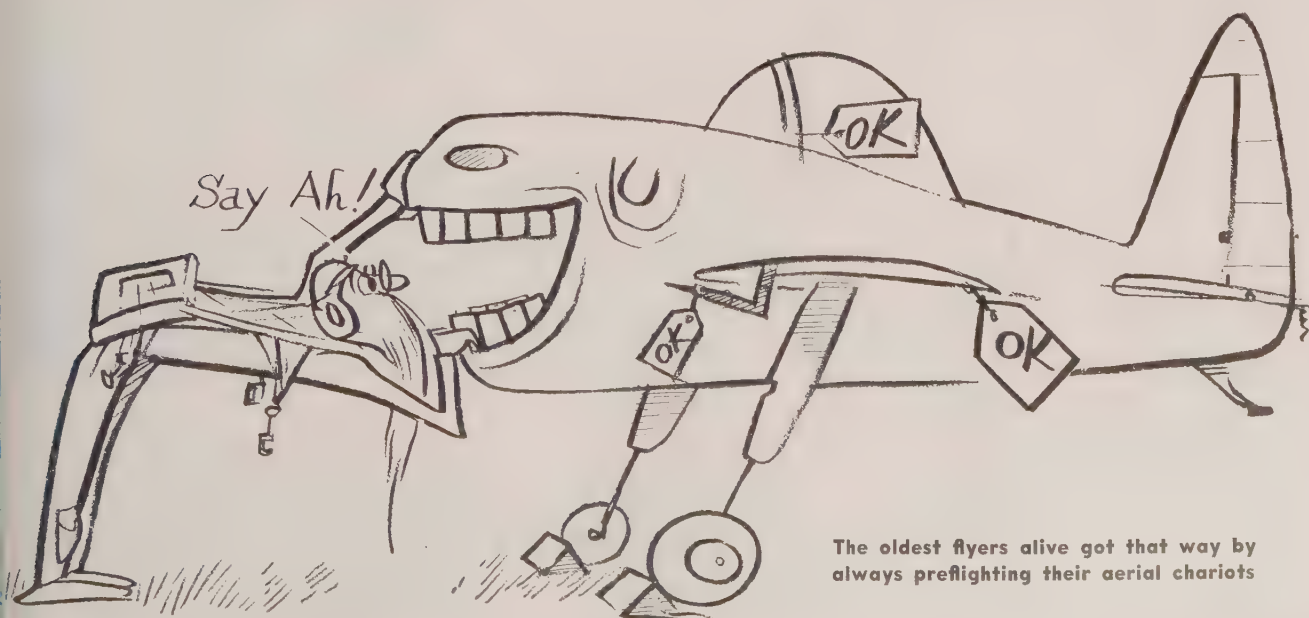
Do you know what will contribute most to your success as a pilot? It won't be your ability to make unerring snap judgments. Neither will it be split-second reaction to bail you out of emergencies. No siree! Such talents are, of course, very valuable in aviation, but they don't hold a candle to the one I mean: the ability to *avoid* the emergencies in the first place.

Aviation is one game in which you can not become an expert by the "trial-and-error" method. That way you probably would break every one of your 200 bones, plus an equal number of airplanes, before you finished the course. Since it is imperative that you avoid errors in aviation, your most important asset from now on will be your ability to *take* advice. I don't mean just to listen

to it and then go ahead in your own bullheaded way. I mean to grasp it avidly, to look always for more, to sop it up like a sponge and then to *follow it*.

Your flight instructor probably will spend more time advising you how to keep out of trouble than in explaining how to manipulate the controls. For example, advice on preflight inspections, such as appears below, doesn't teach you a thing about handling your airplane. But it is one of the best ways you have of *avoiding* emergencies in the air. Be an old pilot and . . . follow it!

There is nothing arbitrary about the preflight inspection; it is all based on experience and common sense. Expert pilots wouldn't think of skipping it. Just because Dilbert is too cocky to be other than casual about it, is no excuse for you to be a sucker and do likewise. (Continued on page 72)



The oldest flyers alive got that way by always preflighting their aerial chariots

The First Ten

(Continued from page 19)

understand, because the Wright brothers taught Lt. Lahm to fly. He was a Cavalryman in the U.S. Army, and a very able balloon pilot, but had had no airplane experience prior to 1908 when he, with Lt. Foulois and Lt. Humphreys, USA., were given their first airplane instruction by the Wrights.

Lahm had made several remarkable flights in free balloons prior to taking up heavier-than-air flying. Probably the best known occurred in 1906, when he won the Gordon-Bennett Balloon Race. That race started from Paris. By careful study of the weather conditions, Lt. Lahm came to the conclusion that, if he could reach a certain altitude, the wind would take him out over the Atlantic Ocean and, by swinging around, bring him back over land in the northern part of England. The other contestants, however, were satisfied to go up and drift with the wind. They were brought down over continental Europe, while Lahm followed the course he had planned, and won the trophy. He completed his flying training with the Wright's at College Park, Md., in 1909. In addition to Airplane Pilot's License No. 2, he holds Dirigible Balloon Pilot's License No. 2 and Free Balloon Pilot's License No. 3. Lahm later became Assistant Chief of the Air Corps, and was the one man more responsible than any other for the creation of the Air Corps Flight Training School at Randolph Field, Texas.

Airplane Pilot's License No. 3 was awarded to Louis Paulhan, a Frenchman. He first came into prominence in 1909, when he made the first non-stop flight over 80 miles. A few months later he became world-famous when he won the coveted \$50,000 prize in an airplane race from London to Manchester.

In those days air meets of all kinds were held throughout the United States, with large sums set up as prizes. Paulhan came to this country to compete for these prizes. He was the first of a long string of foreign airmen drawn to the United States during those "easy money" days.

In June, 1910, he set a new altitude record in Los Angeles. In the early days of flying, cross-country flights were the exception rather than the rule, and Paulhan received much publicity when he flew from Los Angeles to Santa Ana. The remarkable part about this flight was that, while he was in the air, his wife drove along under his plane in an automobile. Because of a head wind he was bucking, she was able to reach Santa Ana before Paulhan arrived in his airplane!

He returned to France and gave up flying, but was killed by a wild buffalo in Africa a couple of years later.

Wilbur and Orville Wright, the two men who were actually the first to fly successfully in heavier-than-air machines, were given Pilots' Licenses 4 and 5.

The Wright brothers were not only pilots and airplane builders, they were also the first of the real aeronautical engineers. They had the first wind tunnel, and were the first men who actually could design an airplane, figure out its performance, and complete it, with the assurance the airplane's performance would be very close to that which they had calculated. We of the older period looked to the Wright's for help and advice in solving all our problems. Little was then

known about the effect of air currents in relation to airplanes, tailspins were unheard of, airplanes were all underpowered, and the airman had few sources of real information. The Wright brothers, however, always seemed to be able to give details that made the operation of the plane, and what happened when one got into trouble, much clearer. Wilbur Wright died of typhoid fever in 1912. Orville Wright is still alive.

Pilot's License No. 6 was given to aviator-sportsman Clifford B. Harmon. Harmon happened to be in France early in 1910. Seeing the rapid development the airplane was making, he entered the Farman School, and later brought back to the United States one of the old box-kite Farman's. During the summer of 1910 he made a record-breaking flight from Mineola, Long Island, to Greenwich, Connecticut. This flight was remarkable because of the long distance flown over the water of Long Island Sound. It took him 40 minutes to make the flight of 28 miles. Harmon never took flying very seriously. He was an old sportsman balloon pilot, and gave up all flying in 1912 to enter the real estate and oil business. Harmon-on-the-Hudson was named after him. He died quite recently.

To Captain Tom Baldwin, one of the most colorful and picturesque of all the pioneer pilots, went Pilot's License No. 7. His was a background of free ballooning and parachute jumping, of building airships and flying them. He was 58 years old when he started to fly airplanes with Glenn Curtiss. He was the first of a long list of barnstormers. He organized his troupe as early as 1910, and toured the world, visiting many foreign countries, and found people everywhere willing to pay for seeing and riding in his airplanes. On his return to U.S., he visited

almost every state in the United States.

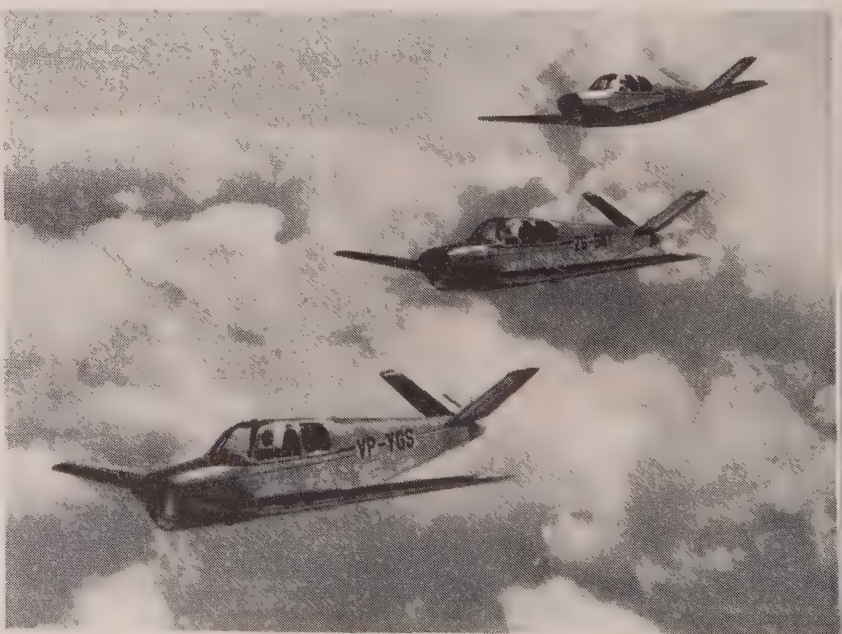
The airplane of that time was made of wood and fabric and wire, the airplane itself being forced through the air by a pusher propeller. Baldwin was the first man in the United States to build and operate an airplane with a metal framework. This is the more outstanding, because it was not until 1925 that the metal-framework airplane came into general use.

Captain Baldwin stopped private flying in 1916, but served in the Balloon Service during World War I. After that, he stepped out of the air picture. He was another of those old timers who survived the hazards of early flying to die peacefully at home.

Pilot's License No. 8 was given to J. Anthony Drexel, a sportsman who learned to fly in 1909 at the Bleriot School in France. Early in the next year he broke the altitude record at Lanark, Scotland, and for the next several months he was either the holder of the record, or trying to regain it when somebody else broke it. He came back to the United States in 1910 and entered the various aviation meets, culminating with the International Meet at Belmont Park in the fall of 1910. He gave up private flying in 1911 but joined our Air Service during World War I.

Airplane Pilot's License No. 9 was given to one of the earliest of the exhibition airmen—those airmen who took up flying to make a living; to get some of that "easy money" that was available. It should be remembered that \$1,000 a day, for perhaps a couple of flights of half an hour each, was the generally accepted rate of payment at these air meets. Both the Wright brothers and Glenn Curtiss had exhibition teams they were sent

(Continued on page 50)



Far-Flying Bonanzas

The Beech Bonanzas are certainly getting around these days. The all-metal Model 35 is being distributed in 37 countries and several already have been delivered to buyers in Canada, Switzerland, England, France, India, Iran, Africa and South America. Three above are destined for Mexico (Top), S. Rhodesia, S. Africa.

STANDARD OF CALIFORNIA'S **PLANE FAX**



A page of service tips for private flyers and fixed-base operators

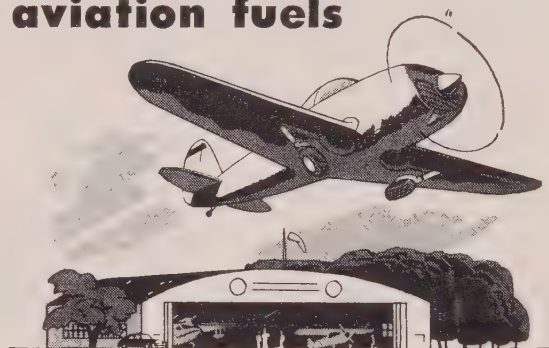


How to avoid crankcase foaming

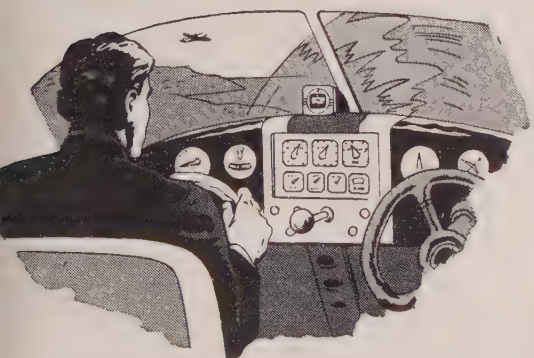
Moisture condensation in your aircraft engine increases crankcase foaming many fold. To avoid this possibility pilots should keep the oil level up to the full mark. In addition to minimizing condensation this practice will help keep oil temperatures lower. One of the many reasons pilots depend on RPM Aviation Oil is because its "defoaming" compound greatly reduces this trouble under all operating conditions.

"Take off" rating important in aviation fuels

The anti-knock characteristics of aviation gasolines are now rated under two operating conditions: In the past these fuels were rated only under cruising conditions, but octane rating during take off has been found to be important. Now, with Chevron Aviation Gasoline exceeding the anti-knock requirements at take off, pilots are assured extra performance when they need it most. Chevron Aviation Gasoline is perfectly balanced to give easy starting, fast take off and dependable protection aloft.



Proper instrument care pays off in safer flying



The proper care of aviation instruments is a simple and inexpensive precaution that pays off in accuracy at crucial moments. A suitable instrument lubricant is required for full protection. The anti-rusting ingredient in RPM Aviation Instrument Oil protects gyro and other instrument bearings from rust due to condensation often found with ordinary oils. That's why it's recommended for all instruments where rusting is a problem.

CHEVRON NATIONAL CREDIT CARDS are good at airports throughout the United States and Canada. Ask your Standard Airport Dealer in the West... or write to Standard of California, 1225 Bush St., Room 1618, San Francisco 20, Cal.



Forced Landings

(Continued from page 31)

a field of raw Wheaties. Serious injuries have been sustained by pilots who made this regrettable error.

III. *Altitude*: New CAA regulations permit you to use your own judgment about minimum flight altitudes over open country. They also hold you responsible if an accident results from flying too low. Over inhospitable terrain it's only smart to allow yourself two or three thousand feet. Then if the prop stops you can at least choose your own gopher holes. Altitude is extra time, but don't let it beguile you into delaying too long your choice of field and plan.

And remember, from a thousand feet or higher everything looks flatter than it is.

IV. *Headwork*: Since wind, terrain and altitude present a constantly changing pattern, no two forced landings will present identical problems. To keep the odds on your side, have in mind a plan you can follow.

First—relax! You still have your wings, haven't you?

Establish a normal glide. (You should do this automatically!)

Pick a field. Take a good sweeping look at the area within your gliding range; eliminate the impossibles at once, then look again and decide on the best field you can get into. Once you've decided, don't change your mind!

Start—now—to maneuver into a base-leg position from which you can make your final turn at a minimum altitude of 250 feet. Your maneuvers will depend on how much of that priceless altitude you have and how much horizontal distance you have to cover. The important thing is to get on that base leg, after which you can dissipate any excess altitude by making S-turns back and forth along the leg. Thus, at any point, a 90-degree turn or less will put you on your desired approach.

Once your approach is established, you may, instead of twiddling your thumbs, make a quick cockpit check and perhaps locate the trouble. But until you are certain of making a safe landing, keep your eyes out of the cockpit. Gas valves and magneto switches can be checked manually.

Don't try to stretch your glide unless you wish to make like an elevator—going down straight. Better come in a bit high and use a forward slip on the approach once you're sure of getting in. It not only helps you land short, but improves visibility in some craft.

Make all turns toward your field. Few things are so embarrassing as completing a 360 only to find the field has moved a few hundred feet out of range.

Tight turns and violent maneuvers are strictly from poison and should be relegated to the top shelf, marked with a skull and crossbones, and used only to avoid immovable objects such as buildings. The tighter a turn (or the more violent a maneuver) the more your lift decreases.

There might be a time when, faced with a forced landing on take-off, you'll find it desirable to turn back to the field. Our guess, however, is that such an occasion belongs to the Department of Exceptions That Prove the Rule.

Don't you ever try it! One hundred eighty degrees is a long way around for most planes, at climbing speed and 600 feet or less. Better see if there isn't a safer choice—unless you are a capable stunt flyer like Bevo Howard.

When you must land in a tight spot, set it down short and fully stalled to shorten your roll. Brakes are indicated, and the ground loop, whose company ordinarily compromises a pilot's reputation, here becomes a highly respectable maneuver. If executed with premeditation and kept under control, it is much easier on the aircraft and the human chassis than a ditch or a stout tree.

A forced landing that's easier on the nerves is the one you know is coming. When gas is too low for comfort or darkness catches you away from an airport, the first and last rule is to land while you still have power and can see what you're doing. Here you have control of the situation. Give yourself a break—don't wait until the last minute. Find your field make a circle around it at 500 feet or so to check for obstacles (particularly wires) both in the field and on the approach. Then fly over it upwind and to one side of your probable landing path, low enough for a double check on stumps, holes and rocks. After that it's just like coming home. ✈

The First Ten

(Continued from page 48)

ing all over the country. The air meet would be attended by thousands of people who came to get a thrill. And the airmen, those early days were only too eager to give them their money's worth, risking their neck every time they went into the air. Todd Schriver, who was one of these exhibition flyers by trade, held Airplane Pilot's License No. 9. After having flown at state and county fairs with considerable financial success, was killed in a crash, in 1911.

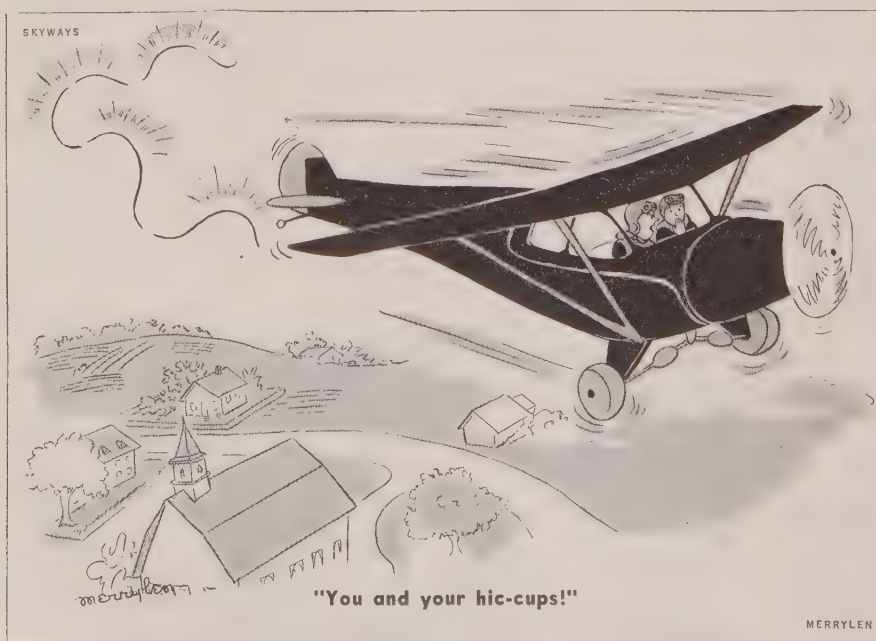
Airplane Pilot's License No. 10 went to Charles F. Willard, one of the first men. Curtiss took on when he formed his exhibition team early in 1910. Willard flew one of those early Curtiss airplanes—wooden wings, bamboo struts and spars, the engine located directly in rear of the pilot so that, unless an absolutely normal landing was made, there was always the possibility of the engine's breaking loose and crushing the man. Willard survived the exhibition flying game, gave up flying as a profession and became manager of one of our aircraft factories.

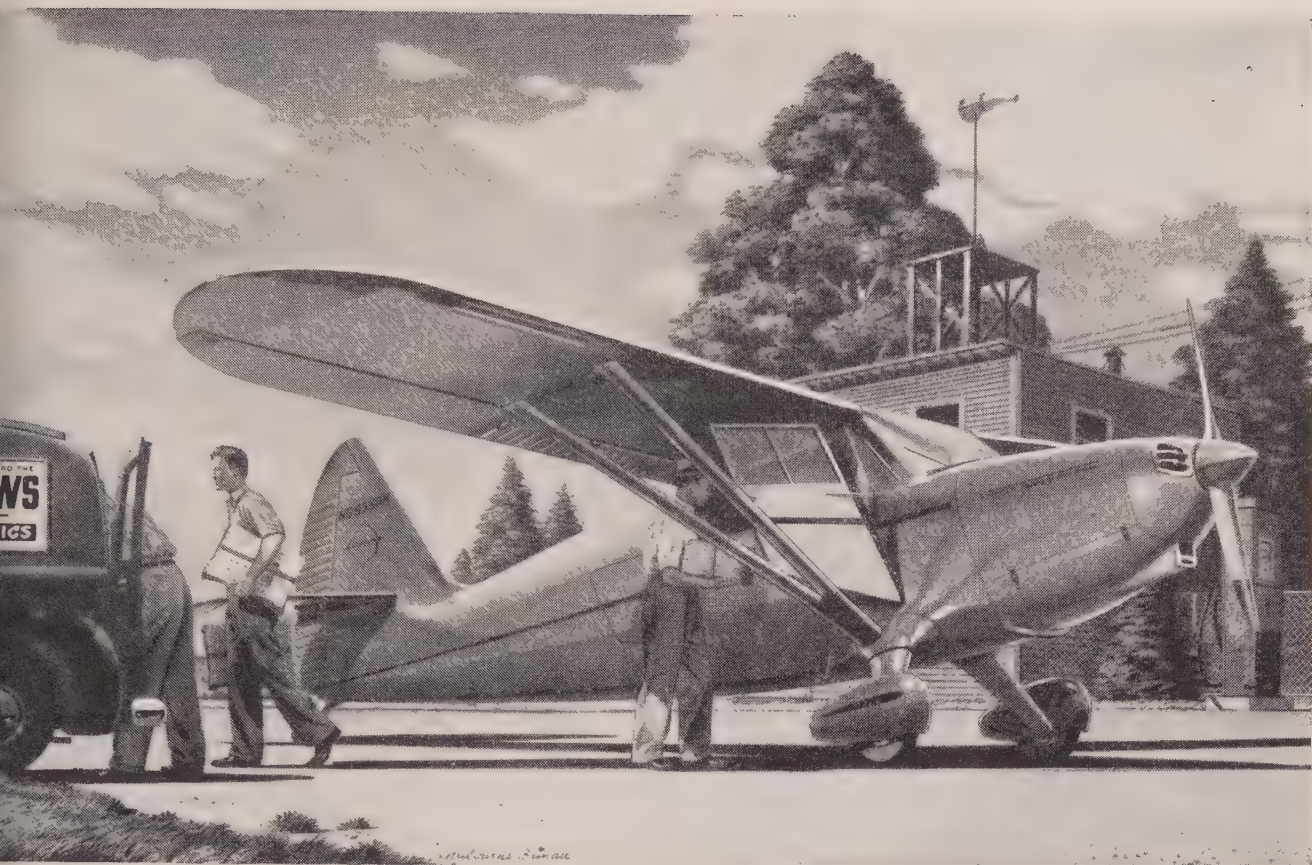
In 1910 Willard carried one of our Army lieutenants up in his plane and, so far as can be learned from all records available, it was the first time a rifle was ever actually fired from an airplane. The rifleman was Jacob E. Fickel—later, Major General Jacob E. Fickel of the Army Air Forces.

These early airmen seemed to be a different kind of individual from the normal person of their day. Dare-devils they were, fearless, carefree men who had to be quick thought and action in order to live, always ready to do something just a little bit more daring than the other fellow to give the crowd a thrill. They lived a highly sensational, but mighty precarious and—all too frequently—a very short-term existence. The death rate was about 50 per cent of those engaged. Very few of the real old-timers who kept on flying survived very long. Some of them were lucky. One of them was in many accidents that it was said he had broken every bone in his body at one time or another. He died of tuberculosis years later. It has been said flying in those days was eight-tenths man and two-tenths airplane. If the man was good—quick, alert, with instantaneous response between brain and muscle—he survived. If he did have those qualifications, he didn't last very long.

Americans take so much for granted. They accept new things as they come. In many cases they do not look back on the rough trail that has been followed to permit our various inventions. The airplane is no exception to that rule. Today we have planes with hundreds of instruments lining the cockpit, airplanes that can fly in all kinds of weather and land by instrument with zero ceiling and visibility. But those early Pilots' Licenses were issued to men who had no instruments at all on their planes, no instruments, that is, except one—a piece of string attached to a brace out in front of the airplane—the forerunner of today's all-important bank-and-turn indicator!

Be sure to read General Arnold's report on those early flyers who earned Pilot's Licenses #11, 12, 13, 14 etc., to #20. In September Skyways—Ed.





Another example of Stinson utility: A progressive newspaper publisher uses his Stinson for rapid newspaper deliveries within a radius of 100 miles.

HERE'S ANOTHER STINSON OWNER WHO SAYS:

"My plane really works for a living!"

WHEN YOU SEE the stunning new 21st Anniversary Stinson Flying Station Wagon, and fly it, you'll quickly understand why so many enthusiastic owners call it America's most useful personal plane!

For utility is the keynote in this new 4-place "working" airplane. And, in addition, you get inherent Stinson stability, rugged dependability, and the reassuring knowledge that here is a plane you can operate in and out of small fields with ease.

It carries a useful load of 955 lbs. Cruises at 125 m.p.h. Maximum speed, 134 m.p.h. Take-off run, only 90 ft. Rate of climb, 755 ft. per minute. Service ceiling, 15,650 ft. Flaps in 290 ft. after landing.

Flaps permit quick take-offs and low, short landings. Built-in wing

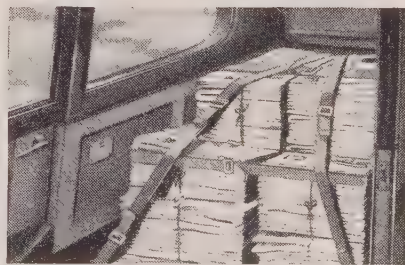
slots for safety. Inherently spin-resistant.

Standard equipment includes: two-way radio, dome loud-speaker, starter, soundproofed cabin with controlled ventilation. Hydraulic brakes. Oleo spring-draulic landing gear for smooth, cushioned landings.

Adding to its broad range of utility is the fact that Stinson is also certificated for floats.

FREE—20-page, full-color catalog!

See this beautiful new Stinson at your Stinson dealer's, or write for 20-page brochure, beautifully illustrated in full color, to Stinson Division, Consolidated Vultee Aircraft Corporation, Dept. C, Wayne, Mich.



Specially reinforced cargo compartment (24 cu. ft.) with tie-down straps and 2-tone plywood paneling. Side-loading baggage compartment offers an additional 11 cubic feet of carrying space.

Load capacity: Pilot, full gas tanks (40 gallons), and 552 cargo lbs. The two rear seats can be removed for cargo-carrying or installed in 5 minutes to make it a 4-place plane.

Stinson

For 21 years, builder of America's most useful personal planes

Sportsman's Airport

(Continued from page 23)

Canyon is Arizona's contribution to the world's greatest sights, but Hell's Canyon of the Snake River is deeper and rugged—the deepest canyon in the world, in fact.

And the Lava Canyon of the Snake between Burley, Idaho and Hangerman valley is unmatched for splendor anywhere in the world. There is no other canyon like it.

Let's tabulate part of what you can see in a three-hour hop from Bradley Field in your Luscombe, Cessna, *Ercoupe*, *Navion*, *Bonanza*, *Aeronca*, or what-have-you. Up north in the Potlatch country is the largest saw-mill in the world, and you can fly the world's deepest river canyon on the way there. Over Mullan way is the Bunkerhill and Sullivan mining country where the biggest hunks of silver in the country are supposed to have been kicked into sight by a prospector's mule. (Some of the bloodiest battles between labor and capital in this nation were fought in those canyons, too.) Over toward the Craters of the Moon you'll see the latest of the North American lava beds to have been active and some of the most desolately beautiful, god-awful desert in the world. Turning off the desert for a 15-minute flight you can land to ski at Sun Valley. If you like ghost towns, there are camps in Idaho that drew thousands of tenderfeet with the golden lure many decades before the better-known Klondike rush in Alaska. Got your gun along? Almost anywhere you fly north and east you'll find some of the best deer and elk hunting in the country. And there's antelope to be had over toward Challis and Mackay on the Lost and Salmon Rivers. If you've got good lungs, lots of ambition, and a knack for mountain climbing, some of the best mountain goat and sheep hunting in the

world challenges the more daring nimrods in the granite-capped Primitive Area northeast of Boise and west of Salmon City. Do you like to combine a spot of schussing on skis with fishing in the winter-time? A two-hour hop on past Sun Valley from Bradley canyon where valley airports and fishing season are both open the year around.

You'll have to go to 11,000 ft. to get in there and climb more than 8,000 to get out, but it's there if you're game.

If it's spring when your vacation comes due, then you are really in luck because rod and reel fishing for steelheads (salmon) in the frothy, cold mountain streams of Idaho's primitive area is one of the most exciting piscatorial sports. In mid-July, if you hanker to wade up to your neck in water melted directly from snows, you can pit your skill against the big red salmon and do some spear-fishing. And if you think a 30-pound salmon in waist-deep water that runs 10 miles an hour isn't a couple of handfuls, then you've got a surprise coming. Take along dry clothes for this one.

If you hanker for the natural wonders, your *Navion* will take you from Bradley Field over Yellowstone Park in a couple of hours and you can swing back over to Butte, Montana—and look at the world's richest hill, where copper runs like gold—when you are ready for gas. Fly west from there and have a look-see at the Coulee Dam where more concrete was poured than you'd need to patch Hell a mile.

You could still get back to Boise for supper, if you left fairly early.

Down the other way there's the Great Salt Lake and the famed Bonneville Speedway, surrounded now by Wendover and Dugway, reputed to be the largest military reservation in the world. You might have to duck a rocket around here, though, so our advice to you is to stay over around Salt Lake.

Salt Lake City itself is worth a visit there you can see the temple and tabernacle of the Latter-Day Saints.

Your *Bonanza* from Boise also would you into Reno in a three-hour cruise, but it's separation you want, why go down the Rents are cheaper in Boise and Idaho that six-week law, too. Oh, you want to a couple of dice or try the spin of a roulette wheel? You won't have to sneak in backway at any of the bars in half a dozen mining camps they'll name for you request at any convenient airport.

To get more specific let's go back to subject of elk hunting. Up in the Lolo T country of the Selway River is a timber-region that attracts hunters from the west over. Almost any of the Salmon River drags are almost as good, in some opinion and at least good enough that nimrods the caliber of novelist Ernest Hemingway movie stars Gary Cooper and Clark Gable are seen regularly among those packing from isolated dude ranches.

'Tis rumored the movie rights for Hemingway's "*For Whom The Bell Tolls*" were in a rain-soaked elk camp not far from Meyer's Cove on the primitive area.

Deer abound in this region and the U.S. Forest Service has built many auxiliary airports, some good, some bad.

Some of these fields and meadows can be reached on the ground only after two or three days of pack-train from the end of car road. Hardly any are more than two hours by plane.

Their names even excite wonder—list them: Hoodoo Meadows, Soldier's Bar, Hurricane Creek, Mackay Bar, Chamberlain Basin (you read Zane Grey's "*Thunder Mountain*" didn't you?). Butt's Point, Bernard Creek, Hood Ranch, Mahoney Creek, Silver Creek, Cold Meadows, Kassal, Stibnite, Yellow Pine, Elk City, Elk Meadows, Mosquito Peak, and many others, all in the rugged, most everlasting and never-ending pile of mountains-piled-upon-mountains from horizon to horizon that you ever dreamed of.

Some of these fields are short, rough, and cats—no place for a sissy; but others are safe enough for any qualified private owner. The dangerous ones are well known to Bradley Field charter pilots can steer wise on them. Others are good enough they take in DC-3's. Some are at 8,500 feet, others down around 2,000.

There's one you land on going up hill and pour on full power to get to the top as you land, or you won't make it. Then bounce back down and take-off over the edge of a ridge, diving to get all the speed you need.

Those under a thousand feet in length for all the savvy a bush pilot has to go to. *Travel-aire*, a tri-motored Ford or a Beechcraft out safely. Keep your lightplane over on the better fields and if you'll give time and advice, available free at Bradley Field, you can easily find one that suits you.

If mountain flying is new, why not along a pilot to check you out and show you the way . . . ? There's nothing like a dual with an expert to simplify flying.

If you like skiing and Sun Valley is rich for your blood, Bogus Basin is a bussing distance from Boise and provides the same kind of thing you get at Sun Valley in the way of snow and steep hills. But less than an hour's flight to Sun Valley.

(Continued on page 56)

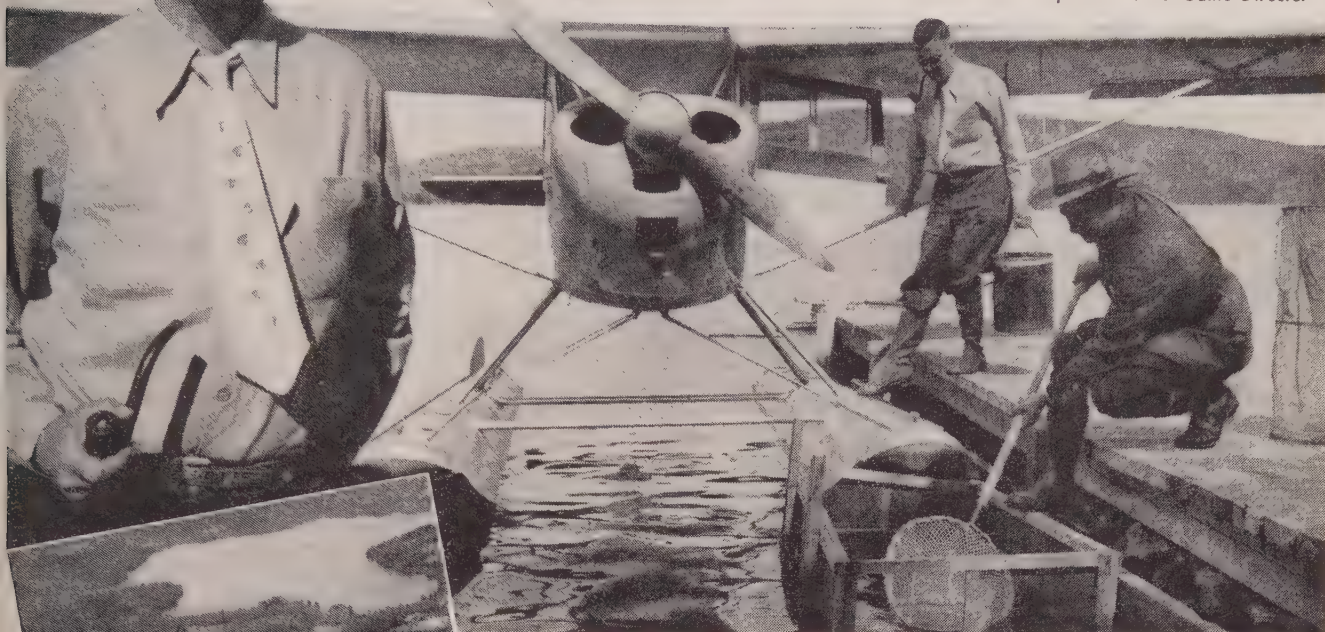


FIRST FLIGHT PHOTO OF NAVY JET

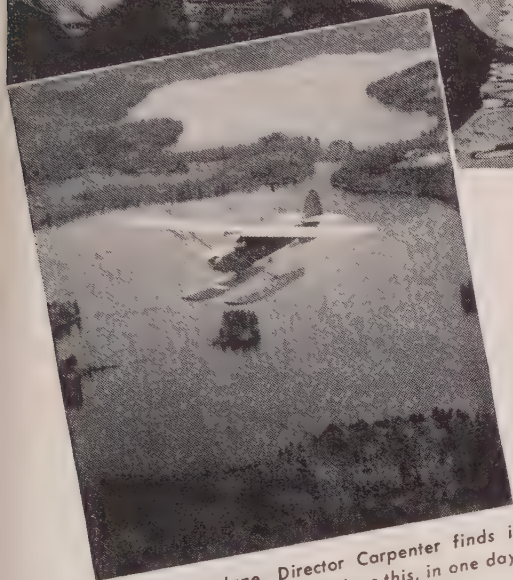
FJ-1 FIGHTER is North American's first jet plane for U. S. Navy. General Electric TG-180 (Navy, J-44) axial-flow turbojet drives it at "well over 500 mph"

"We've got flying fish in New Hampshire"

Says Ralph G. Carpenter, 2nd
New Hampshire Fish & Game Director

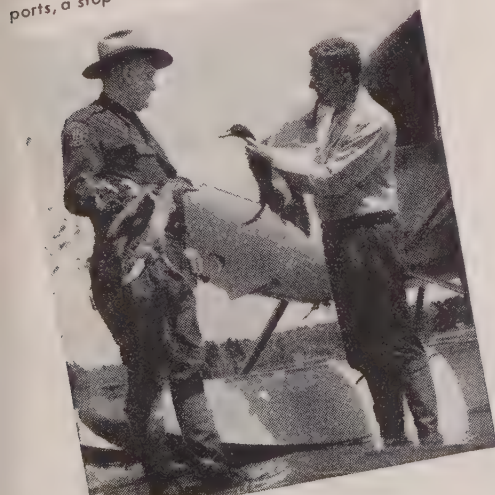


Both time and fish are saved by use of an Aeronca Chief on Edo floats to re-stock New Hampshire lakes.



With a floatplane, Director Carpenter finds it easy to visit many lakes, such as this, in one day.

Typical of casual landings with 'ready-made' airports, a stop is made to examine disabled ducks.



"SURE, the fish fly in New Hampshire, for we use a floatplane to stock fingerlings in even the most remote lakes. And these 'ready-made' airports make it easy for me to cover the entire state on fish and game work. If you fly floats, you'll find it easy, too, to get to the best hunting and fishing grounds."

That's mighty good advice, for any sportsman. Fly floats and you'll get in more days of sport per year, without taking any more time off from work than usual. You can make week-end trips to spots that once required a week to reach. Best of all, floatplanes take you quickly to the isolated lakes and rivers where visitors are few and sport's the finest.

Edo floats are now available for all leading types of personal planes. They're quickly installed and simple to fly. Deliveries are immediate either for factory-new planes or conversion of your present plane. If you haven't flown floats yet, drop by your nearest seaplane base and ask for a demonstration. Just look for this sign:



WRITE TODAY for these two booklets that tell you how to fly floats and how to build your own base. Address



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\$10,000

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Northwest Aviation, Inc.
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South St. Paul, Minnesota

Parks Aircraft Sales & Services, Inc.
Parks Metropolitan Airport
East St. Louis, Illinois

Provo Flying Service
Provo Municipal Airport
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Rankin Aviation Industries
Pearson Airpark
Vancouver, Washington

Miami Aviation Center
P. O. Box 216
Miami, Florida

Servair Aviation Corp.
420 Shoreham Building
Washington 5, D. C.

Southeastern Air Service, Inc.
Municipal Airport
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Stewart Airport Company
Stewart Airport
Parkersburg, West Virginia

Swan Airmotive
3025 Airways Boulevard
Memphis, Tennessee

Hicks Aviation Service
Highland Park Airport
Route #7
Dallas, Texas

Harding Field Aviation Corp.
Baton Rouge, Louisiana

Sky-Tech, Inc.
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Cleveland, Ohio

GRAND PRIZE #1...a new Ercoupe

"Why I Want To Own An Ercoupe?"

GRAND PRIZE #2...a new Ercoupe

"What I Consider Ideal Features in a Personal Plane"

GRAND PRIZE #3...a new Ercoupe

"What I Consider Requisites of a Private Pilot"

NOW you can win that personal plane you've always wanted—simply write a good letter—and you have a choice of three subjects about which to write.

You can try for one plane, two planes or three planes, but enter this great contest today! Win these fine ERCOUPES for your own personal use! It's easy, we've given you the theme—all you have to do is write about it in as many words as you feel necessary.

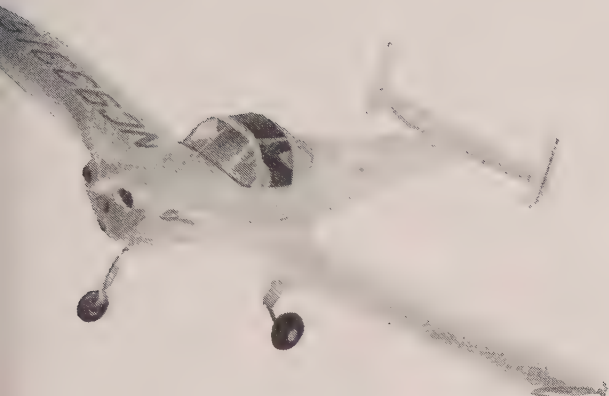
This is a contest of skill in which everybody has a chance to win—the rules are simple and the prize planes are waiting for you at the factory. There is no limit as to the number of times you may enter or the number of different ideas you include in your various entries.

Read the rules carefully. You may use the entry coupon provided on these pages or obtain one from the ERCOUPE dealer nearest you.

Last Chance! Contest Closes

00

in ERCOUPES



If you would like a trial flight in one of these certified spin-proof planes, you may have one without obligation at the dealer airport nearest your home. The ERCOUBE distributors listed alongside will direct you to the dealer in your territory.

ERCOUBE is a two-control, spin-proof plane that makes flying safe and easy—its two controls are a steering wheel and a throttle; no footwork in flight. It carries two people and luggage over 100 miles in one hour on five gallons of gas. The ERCOUBE is highly maneuverable; has tri-cycle landing gear which is ideal for rough terrain and its all-metal construction means low maintenance cost. These fine planes are selling for \$3450.00 f.a.f. as of April 10, 1947.

All entries must be addressed to SKYWAYS-ERCOUBE Contest Editor, Henry Publishing Co., Room 3708, 70 E. 45th Street, New York 17, N.Y.

August 15, 1947!

CONTEST RULES

1. In case of tie, a duplicate Grand Prize will be given to each winner.
2. All entries will be carefully judged as to originality, uniqueness of idea, sincerity of expression, logic of argument and neatness.
3. The prizes consist of three new ERCOUPES. One will be given for the best letter on each theme: "Why I Want To Own An ERCOUBE;" "What I Consider Ideal Features in a Personal Plane;" and "What I Consider Requisites of a Private Pilot."
4. The judges are Fred E. Weick, V.P., Engineering and Research Corp.; J. Fred Henry, publisher, SKYWAYS; and Charles B. Strauss, V.P., Dorland Internat'l, Pettingell & Fenton, Inc. Decision of the judges will be final.
5. There is no limit as to number of entries for each contestant and each may try for all three Grand Prizes.
6. Letters must be accompanied by an entry coupon as shown on this page or a reasonably exact facsimile thereof.
7. Winning contestants must accept f.a.f. (fly-away factory) delivery at Engineering and Research Corp., Riverdale, Md., within thirty days after notification that they have won.
8. Contest open to everyone except employees of Henry Publishing Co., Engineering and Research Corp., and their advertising agencies.
9. All letters and their contents become the property of the sponsors.
10. Winners will be notified individually and full announcement will appear in the first available issue of SKYWAYS.
11. There is no limit on number of words used in letters.
12. Both entry coupon and letter are to be mailed to SKYWAYS-ERCOUBE Contest Editor, Henry Publishing Co., Room 3708, 70 E. 45th St., New York 17, N.Y. All entries must be postmarked no later than midnight, August 15, 1947, closing date of contest.

ENTRY BLANK

- SKYWAYS-ERCOUBE Contest Editor
- Henry Publishing Co.
- Room 3708, 70 East 45th St.
- New York 17, N. Y.

Enclosed is my entry to the SKYWAYS-ERCOUBE Contest. My letter is for the Grand Prize No. One ☐ Two ☐ Three ☐ (Please check).

Name _____

Address _____

City _____ Zone _____ State _____

Sportsman's Airport

(Continued from page 52)

only three-hour flight down to Alta, Utah.

Going into Sun Valley, you'd land at Hailey most likely and take a bus the last 15 miles. If your ship has skis, too, and you are reasonably sharp, go on in and land right at Sun Valley, or above Ketchum in the Wood River canyon; but if you are on wheels, Hailey is the place and make sure to check on the condition of the runway before going in there unless you can get back out without having to land. If it snowed a foot the night before, you don't want to be landing a lightplane there on wheels. Ordinarily, though, it is a nice field with a mile runway that is wide open on both ends.

The state naturally has furnished the amphibian owners with some splendid landing fields. There are lakes galore.

Big lakes at low altitudes and littler lakes at high altitudes. And mile upon mile of the Snake River is usable for seaplanes and amphibians. There are numerous reservoirs, too, all of them stocked with fish—trout—and all of them open to the touring pilot. With a light load, a big engine and a hell of a good getter-offer, you might be tempted to land on Red Fish or Alturas Lake up in the Stanley Basin for some of the most glorious fishing and camping scenery in the world. Don't land an under-powered airplane there, though. You'd have to carry it out over Galena Summit on your back and that's almost 9,000 feet high.

One hundred miles north of Boise is Payette Lake near McCall, where the horses use snowshoes in the winter time and the snow often gets 20 feet deep. And nobody's spoofing you, either.

In the far north of the state is the Pend Oreille and Coeur d'Alene and Hayden and Priest lakes, some of them big enough for the Hughes flying boat, and first recorded by the Lewis and Clark expedition.

Horse lovers will delight in knowing that an hour's flight southwest of Bradley Field will carry them into the largest remaining wild-horse ranges of the world. In Owyhee county, Idaho, and Malheur county, Oregon, range the desert mustangs—not good, blooded, big horses like those on the Red Desert of Wyoming, but little devils, 800 pounds and less that can run like the wind and as tirelessly; just mustangs, cayuses, broom-tails, short-legged, spirited, shaggy little beasts as cunning as foxes, running in their little polygamous bands with a stallion patriarch ruling from four to eight mares.

The rolling mountain-pass ranges between Mackay on the Lost River and Challis on the Salmon are rife with antelope and you generally see several every time you drive through with a car. From the air they are harder to spot, but with a bit of searching more of them can be found than you are apt to ever see any place else. Suppress any impulse to "buzz" them, or the wild horses, either. Barbituric acid is a much pleasanter way of committing suicide.

A probable surprise even to westerners will be the news that sturgeon, thought of as a sea fish, can be had in hundred-pound sizes in the inland state of Idaho, as they work their way up the Columbia and the Snake Rivers. They seem to thrive in the high country. Not as exciting, though, as those Salmon

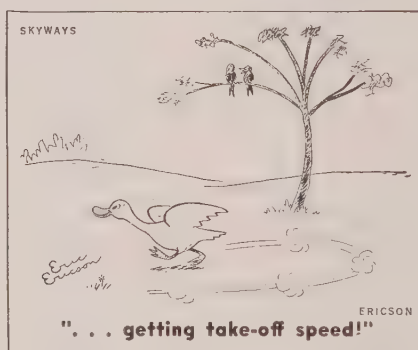
runs on the other side of the mountain. Hunters come from the nation over to bag pheasants in Malheur county, Oregon, the county seat of Vale being the center of activity. Airmen flying in will find Joe Blackwell to welcome them on a nice little field where pheasants fly up from under your plane as you skim in to land. So far they haven't shot any pilots by mistake. One hour west of Boise.

Then for sage hens and more really good pheasant hunting, you can hit the lower reaches of the big and little Wood Rivers south of Hailey and Carey, one of Ernest Hemingway's favorite hunting grounds.

Wallace Beery is another who flies in every year for Idaho hunting and he has pioneered the pastime in the Gem state. Beery started flying in about 1928 with an open-cockpit biplane and has seldom missed a season. His was one of the first aircraft to land at those fabulous deer paradises at Big Springs, Henry's Lake and West Yellowstone.

Nearly everywhere you go in Idaho you'll find air-mindedness prevalent. You'll find excellent airports in some strange and out-of-the-way corners and very good fields adjoining towns of 300 and fewer people.

The city of Boise itself, with about 30,000 population, has five very active airports, in-



cluding the multi-million dollar Gowen field, a joint Army and Municipal operation.

Only in the lower reaches of the wild Owyhee county will you be apt to stray more than 50 miles or so from a good usable airport. This adds safety to your trip.

There's hardly any kind of game, from moose and grizzly bear to roulette and craps that you can't get a play on within three or four hours flying time of this beautiful little city on the Boise River.

Most places you'll be treated like home folks, too. There are a few towns like Ketchum and Hailey where bars will have one price for the home guards and another one, about double, for the visiting airmen on the old sucker-play that I suppose you have to expect, bars and gambling joints being run on the ethical codes of that sort of place, but you don't have to trade with the clip-joint artists and you can depend on getting a run for your money at any of the really nice places like Sun Valley where you pay plenty, but get a very fancy brand of what you buy—glamor and service.

Anytime you have a couple of weeks to spend with your airplane and would like to combine sightseeing with fishing, hunting or gaming at its best, just send along a telegram to Phil Cox at Aircraft Service Company, Bradley Field and you'll be set to land with hotel reservations at the hub of the west's most beautiful and scenic wonderlands.

Luftwaif

(Continued from page 25)

Most of the stuff was pretty well shot up. I found the Waif, or what was left of and decided she had possibilities. We her out and then everybody pitched in helped. Got a kind of a flying club together.

"Don't think," he added hastily, "that weren't doing our regular job—we were, got a letter from General Hal George says so. But we still had time on our hands."

"The Waif is a Bucker-Yungman, place pursuit trainer. It's now the only registered in the United States, but that a heck of a long way off then. Everybody the time was collecting trophies of war, decided I'd get me an airplane instead one of Hitler's mustache cups. HQ gave the authorization, so I thought I was all Little did I know!

"You remember the Treaty of Versailles and the fact that the Germans weren't allowed military planes, but how they finally allowed gliders and then sports planes. This was one of the first 'sports' model limited to 100 hp. Its basic design was down in 1934 and thousands more like came off the lines to satisfy the demand the Hitler 'sportsmen.' The Waif was built 1938, serial number 4111 with a four-cylinder air-cooled, inverted Hirth engine.

"By the time the boys and I had gotten ship into some sort of shape my orders through to proceed to Paris by air. I'd given her a couple of hops around the field before Control closed us down for fear of an accident which would foul up the conference. We hadn't been able to find any instruction books or manuals about her, so I'd taken her up by guess and by God. All instruments were on the metric system they were tough figuring.

"Since I was to go by air, I didn't see reason why I shouldn't make the Paris run in the 'Waif.' If you'll remember, at that time the Russians were holding all of Berlin and had established both air and ground controls over every person or thing coming in. They required only one hour's notice to leave. I'd painted big USA's on the rudder and the wings and made the ship bright and aluminum. When it came time to leave I filed my notice during the long Russian lunch hour and before they were through eating, I was on my way and had cleared miles of their territory.

"I didn't know the 'Waif's' cruising speed or gas capacity and I didn't have a radio. There were more 'unknowns' on that day than any other I've ever filled out.

"I cleared Berlin to Frankfurt and along the autobahn at 500 feet so no one would think I was trying to slip away. I just pretended I had full authority for the trip. Magdeburg was the last place in the Russian zone that I had to pass and there was a big Russian fighter base there. I had a kind of uneasy feeling in the pit of my stomach when I went over but they didn't come up. Then I hit the American base at Kassel and three P-47's decided to have a look at the strange bird.

"The 'Waif's' cockpits were too small for me to wear a parachute, so I wore the harness and left the chute in the front seat. The P-47's came so close I stood up and grabbed the chute and held it in my lap, thinking

(Continued on page 58)



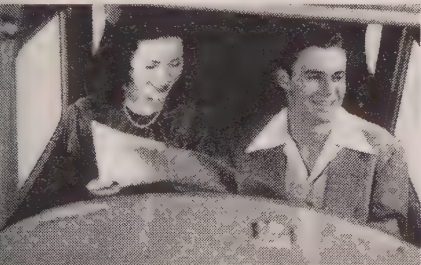
Now you can do the things
you've only dreamed about!

THANKS TO THE PLANE
THAT GIVES YOU

More for your Money!

There's no end to the far-away places you can visit—the exciting things you can see and do—when you own a shiny new Cessna 140 or 120!

For here, at last, are practical, 2-place, cross-country airplanes... at light "training plane" prices (only \$3245 and \$2695* o. b. Wichita). Both give you over 120 m. p. h. top speed, 450-mile non-stop range, all-metal structure and many comfort and safety "extras". Anyone who can drive can learn to fly them. And gas, oil, service and depreciation run about the same as on a family car. Convenient time payments. See them!



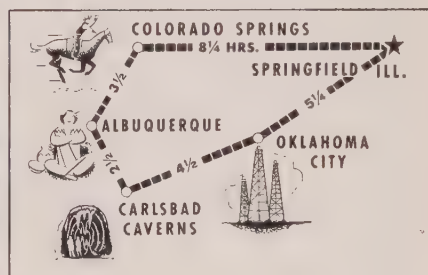
More comfort for your money! Beautiful upholstery. Adjustable foam rubber seats. Directional ventilation. New sound-proofing which permits normal conversation in flight!



All Aboard for points West! There's plenty of room for luggage (up to 80 lbs.). Or a comfortable seat for children can be installed easily in Cessna's roomy luggage compartment.



More safety, too! Cessna's patented safety landing gear absorbs shocks—helps smooth rough fields. And the 140 is equipped with full-range wing flaps for safer landings.



Trips like this are easy in a Cessna. Owners report they average nicely over 100 m. p. h. and get over 20 miles per gallon from the 25 gallons of fuel in Cessna's twin wing tanks.



Cessna's beautiful instrument panel is shock-mounted for longer instrument life, greater accuracy. Note extra leg room, too, in the comfortable Cessna cabin.

Also See the New
CESSNA 195 and 190
AIRLINE SPEED,
AIRLINE COMFORT
in Your Own 4—5 place Personal or Company Plane!



Big, fast, luxurious... yet surprisingly economical to own and operate! Both are all metal. Both have the famous Cessna cantilever wing and patented safety landing gear. The 195, equipped with a 300 H. P. Jacobs Engine, has a top speed of

over 180 m. p. h.—a range of over 700 miles—carries 200 lbs. of luggage. (Or five people, if you're traveling light.) The 190 offers comparable performance with a 240 H. P. Continental Engine. Ideal for personal or charter use.

*The 120 is the ideal training and utility plane. Less luxurious than the 140 and not equipped with starter, battery, generator or flaps.



MAIL THIS COUPON NOW..

Cessna Aircraft Company, Dept. S, Wichita, Kansas

Please send free literature giving complete description of the Cessna 190, 195 ☐ Cessna 120, 140 ☐ Additional material for model builders ☐

Name

Street No.

City

County State

Luftwaif

(Continued from page 56)

were going to shoot me down. But they saw she was too small for either guns or cameras so they let me go. That was a relief!

"When I throttled back to land at Frankfurt, the engine quit—so my first cross country landing was dead stick. Some of the fellows there who had flown lightplanes more than I had checked the engine and found I'd been cruising too slow for an air-cooled. I'd just about hung her in the air at 1800 rpm when she should have had 2350 and I'd been doing 82 mph as against the normal of 106. Having settled that, I got some more German gas aboard; the boys radioed Rheims what was happening; and I didn't have much trouble on the next leg.

"However, I was facing right into the sun without much forward visibility, and I had all those German instruments set to metric measurements. The compass hadn't been swung and I wasn't making a true track. In fact, I might say I was doing a little wandering. Five minutes after my ETA, I still couldn't see the Rheims' cathedral anywhere. Then I spotted a railroad tunnel, located it on the map, and came in.

"The next morning, I took her over to Orly Field, Paris. It's big and it was full of transports. I had to buzz around awhile before landing, because I couldn't contact the tower. I found out afterwards that Control had warned all planes to stay away—that there was some crazy Frenchman in the air and they'd better let him in."

"In Paris, I had a French carpenter take the 'Waif' apart and crate her. A QM outfit which was making daily trips to Le Havre landed it on the dock for me. I finally got the U. S. Shipping Lines to say they would take it C.O.D. if I would pay for it if and when it arrived. There still wasn't any commercial shipping being done. Also, there was a French law saying no airplanes could be shipped out of France during the war, but for \$5.00 and a can of pipe tobacco, I hired a French lawyer to get the law waived for me.

"My orders for home came through and several months later, I received word that the 'Waif' had reached Brooklyn, on Le Havre Bill of Lading #2. Customs sent me word to come and collect my airplane—and that was when my troubles really began. When I reached New York, I found that

under U. S. law a plane was an article of war and couldn't just be brought into the United States. She really was a waif.

"Before I was through, I acquired a practical education in international aviation. Here I had an airplane sitting on the dock but I was supposed to have a license to import it. I applied. The application asked the source, so I put down 'Luftwaffe, Germany.' I tried to be truthful. Then it seemed that the State Department didn't think it was a good idea for an American citizen to be doing business with the Luftwaffe at that time, so they sent my application to the Pentagon, asking War Department investigation. There, I was on my home grounds. I told the Colonel who received the application the whole story, showed him my papers proving it was a war trophy and that I just wanted it for fun. I didn't see any reason why it should be taking up a lot of Generals' and Colonels' time. But the Colonel said it was all so irregular that it would have to go through the mill.

"That took another two months and all this time my treasured trophy was sitting on the dock in the salt air of Brooklyn, with the Customs' people getting madder and madder and writing me about two letters a week to come and take the damned thing away! Not to mention the fact that the storage charges were getting out of hand.

"Finally, all that sheaf of papers fell out of the Pentagon, with the decision that: 'Due to all the circumstances attending this particular item, the War Department will interpose no objections.'

"They arrived just in time to meet the dock strike head-on, and the 'Waif' sat a few weeks more. I sure was getting a good refresher course in unwinding red tape.

"Well, the boys at last settled their differences and the 'Waif' hit the road to Washington by truck, free at last to become a private citizen of the U. S. A. Except that she still had to be overhauled, her bullet holes patched up and be given a CAA license.

"I wanted a good job done on that overhaul because one of those U. S. bullets might have gone through a vital joint. But there wasn't an American-born A and E mechanic that I could find who knew how to handle the metric system. I hadn't been able to get any drawings from the AAF, the Library of Congress or anywhere else until Wright Field finally loaned me two books in German, one on the plane and one on the engine. Those books (which cost me \$60.00

to get photostated) 'were written in amazing detail the Germans use, with plenty of every tool needed, even to the hammer, screwdrivers and toolbox. Then they died all over again for ersatz parts.

"About this time, I had a stroke of luck. I located a Czech woman married to a U. S. Navy officer, who was a licensed A and E mechanic. She knew her meters and centimeters and she could read technical German. She's some gal—she also happens to be a graduate of the Sorbonne in archaeology and speaks a lot of different languages. And she is absolutely independent. She said she'd do the job on two conditions—that she be allowed to do it her own way and that she could take as long as she wanted to. Boy, I agree fast!

"Fourteen months later, she told me the 'Waif' was ready to fly and I believed her. I never saw a job like it. She didn't put a nut or a screw in that plane that had a special rust on it.

"When she finished, she left for the Caucasus to have a vacation. And believe me, she had earned it!

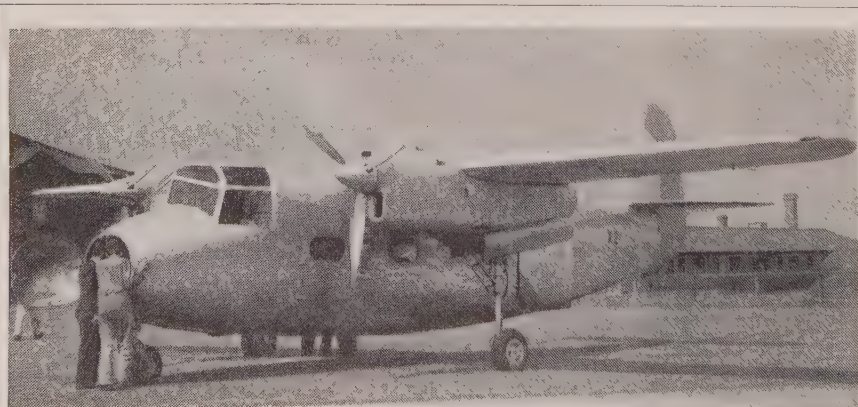
"The last hurdle was that CAA license. To prove ownership, the books said I had to buy a Bill of Sale and a statement as to what interest the grantor had in the ship and how much he conveyed to the grantee. So I had to be a little agile again and Mr. Morgan at CAA had to be a little liberal to accept a trophy-of-war idea. He had to decide that 'captured enemy equipment' meant full interest and that award of the item as a trophy of war conveyed full interest in lieu of a Bill of Sale. Back in 1928, I had built myself a small plane and had gotten license No. 1 on it. So Mrs. Havenner at CAA was generous enough to give me #372 again for the 'Waif. That was pretty swell.

"Since my little 'Waif' is the only one in the country, her general performance characteristics are interesting. They are hardly comparable to U.S. planes of the same hp but is, otherwise, the most pleasant plane I've ever seen for sport use. Being open, she's recommended for flying in weather. I put a two-way radio and navigation and landing lights. The extra weight and drag cut cruising speed to 100 mph. Her takeoff and climb are poorer than ours because she's heavier and has thinner, small wings. Landing speed is also increased by the new equipment to about 55 mph. But in effect, I have a tiny, underpowered, two-place pursuit plane. Its definite superiority is in its maneuverability and its strength. It is perfect for steeping and has unlimited diving speed. 225 mph straight down, which is as fast as it will go.

"As to its cost, out of Berlin it was \$100. But I've spent several thousand on it since many times what it would have cost me to buy a surplus BT. It's no crown jewel trophy.

"When I fly, I take a look first at the comparison tables of meters vs. our own figures that I have glued to the side of the cockpit. Then I read the instruments. It's like having a flying library.

"But I figure the education I got and the lessons I learned will come in handy for a lot of other guys who want to do something different in the way of flying. I said I got a little religion about this One World business. Flyers, especially private flyers, can do a lot to tie the world together and help everybody get better acquainted. Only we've got to throw the red tape in the river if we're going to get anywhere."



NEW BRITISH LIGHT TRANSPORT

Recently one of G. B.'s newest small air freighters, the Percival Merganser, made its first flight. It will carry eight passengers or 1,825-pound cargo

Start Flying Now!

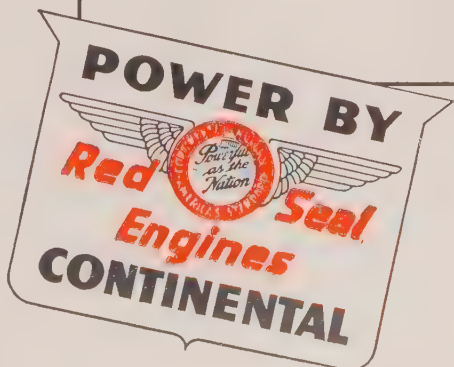


"KEEP OUT" NEEDN'T MEAN YOU!

If leaning on the airport fence is a habit with you, Mister, it's ten to one the "Keep out" sign won't always apply to you. Sooner or later, by taking just one simple step, you'll get your passport to that thrilling new world on the other side. Those fellows you're envying? You'll be over where they are now, and someone else will be over here, wistfully watching YOU. Learning to fly is simpler, less costly, than you think. If you qualify under the GI Bill of Rights, it involves no money — only a few hours' time. Why not stroll over to the Continental dealer's — right there at the airport where you are — and find out how little time and money it takes to learn to fly?

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The Age of Private Flying is definitely here. Thousands of people — farmers, salesmen, business executives — who took up flying as a hobby, find that it pays out from the utility standpoint too. There are fast, safe, reliable planes for a wide range of specialized uses. And there's still time left, this season, to get your private pilot's license and derive utility — and fun — from the plane you rent or buy.



Sports Take Skyroad

(Continued from page 28)

Cleveland, San Francisco, Los Angeles, Buffalo, Miami and others, the fans evidently liked the idea of a really national league of football teams.

When Larry MacPhail decided it might be a good idea to cut the travel time of his New York *Yankee* baseball players by flying them between American League cities, he put the matter up to his squad. The majority voted approval and by season's end, nearly all of the few who had voted against plane travel were riding the clouds with their mates instead of taking the train.

But if the experience of the *Yankees* means anything, it is going to take a season or two to completely sell some of the pros on plane travel. All conceded that plane travel had the edge in speed (by going by air the *Yankees* were able to cut their longest jaunt, New York to St. Louis, from the usual 19-hour train trip to less than 5 hours), physical comfort, cleanliness and convenience—but there were some who found their minds not wholly adjusted to carefree air transit. The only way they could be convinced was by traveling this way—and it took nearly all season to convince these skeptics that the plane was as safe as the train.

The World-Champion St. Louis *Cardinals*, Boston *Red Sox*, Brooklyn *Dodgers*, Boston *Braves*, Philadelphia *Athletics* and several other major league clubs found airliners time-saving last season—but in a manner typical of the Pasquel brothers, the Mexican baseball league went the United States loops one better this last summer. While the American circuit teams were, in the majority, still confining most of their travel to rails, the Pasquel brothers were making it easy for their players by providing luxuriously equipped DC-3's for the travel between the "south of the border" playing cities.

It was this easy, time-clipping travel of the Mexican ball teams which prompted Miquel (Mike) Aleman, Mexico's new president, to express the hope that his administration might be able to sponsor "an international baseball championship," with American and Mexican teams flying back and forth for the games. "We would also like to see American college track, baseball, tennis and soccer teams down here and, in turn, we would like to compete up North," he said recently as he explained Mexico's ambitious sports field building program. The airplane, he visions, now makes possible the attainment on the athletic fields of new American-Mexico friendships "which," he declares, "last through life."

Considerable good-will in South America was made by the tour of the five-member American amateur tennis team in December, 1945. The players (Don McNeil, Dorothy May Bundy, Frank Guernsey, Elwood Cooke and Cooke's wife, Sarah Palfrey Cooke), traveling under the auspices of the American Lawn Tennis Association in a Pan American *Clipper*, found not only more time for play in each country—but, more important, a great deal more time to win new friends.

The pay-for-play hockey leagues were probably the first to find that the airplane made international competition comparatively easy, as far as travel was concerned. Flying cuts travel time between New York and Canada to two hours, as compared with 12 hours by

train, and makes possible schedules which call for the appearance of the New York and Montreal teams one night in Montreal and the next night in Madison Square Garden.

Almost the same route is taken by the ski enthusiasts when they fly northward from New York's La Guardia Field. Skiers fly Colonial Airlines to Vermont or the Laurentian Mountains, north of Montreal, where snow abounds. It's but a couple of hours flight time to Canada by plane and saves praying for snow, which most New Yorkers have to do when they visit N. Y. resorts.

On the Canadian-bound snow specials, 21 of the 21 passengers usually wear ski clothes. In this manner, they save pounds and parking space and are able to keep warm when they hop from the plane to a sleigh for the ride to the inn, chateau or farmhouse. Colonial also has a rule just for the skiers—they are allowed 50 instead of 40 pounds of free baggage if the extra 10 pounds is in sports equipment.

New Hampshire is another area making a big bid for winter-sports enthusiasts and for the weekenders who are anxious to save time in travel so more hours can be spent on the trails and slopes. Northeast Airlines and Dartmouth Airways are flying New Yorkers and others direct to the snow areas.

The airlines have opened new vistas for the ski-sports fans. Colonial Airlines, flying DC-3s, wings skiers into Burlington and Rutland, Vt., for Stowe's Mount Mansfield, Rutland's Pico Peak, Manchester's Big Bromley, and Snow Valley; to Lake Placid, Saranac Lake and Plattsburg; to Glens Falls for North Creek, to Montreal for the Laurentians, and Ottawa for the Gatineau Valley. One and seven day trips are featured.

Alta, situated in the high, snow-covered, Alp-like ranges of the Wasatch Mountains, 28 miles from Salt Lake City, is another celebrated ski run now served by airlines. United flies the skiers into Salt Lake City where motor transportation can be obtained.

The increase in air transportation facilities has been a great boon for America's hunters and fishermen.

Last autumn, during the Dakota pheasant season, United Air Lines operated "Hunter Specials" from both the East and West Coasts to Dakota Ring Neck Lodge at Aberdeen, South Dakota. The Nimrods boarded chartered Mainliners in the morning at Cleveland and other eastern cities, and at Seattle or Portland on the West Coast so as to reach the lodge by early evening. Texans came north by Braniff Airways. Under a specially arranged "all-expense" plan, the hunters were provided with six full days of hunting before they enplaned for home on the afternoon of

the seventh day. There always was plenty of room for guns and duffle—and choice birds on the flight home—since each hunter allowed a maximum of 75 pounds of baggage.

Eastern Air Lines revived its war-pended Flying Fisherman Club and, last added another sportsmen's flight unit known as the Flying Hunter Club.

Eastern's Flying Fisherman Club, which was the growth of an idea propounded in 1935 by J. Hammond Brown, outdoor columnist of the *Baltimore News-Post*, saw thousands of sportsmen until its retirement for the duration. It is just the thing for a businessman whose interest in salt water game fishing, as found in the waters off Florida, is keen but whose time is limited.

As in former days, Eastern is again awarding certificates and the Eddie Rickenbacker trophies to those who reel in record catches. Much the same in prizes are awarded to flying hunters group. And there is talk of conducting an annual dinner for the prize-winning hunters and fishermen.

Early last spring, Pan American flew a million white fish and lake trout eggs from the Great Lakes to Peru's famous Lake Titicaca, in the heart of South America's Andes Mountains. Other *Clippers* are now flying sportsmen down to reel them in.

Pan American, on its way to Europe, is taking anglers to Newfoundland for salmon trout fishing at famed Gander. And even now and then the passenger list of our overseas-bound airliners may include a junior hunter bound for the excitement found some African green hell.

Name your sport and you'll find wings being added as standard gear.

Rowing crews of Harvard and MIT took to the air with American Airlines last July to fly to Seattle, Washington for the regatta on Lake Washington—the first time complete crews have ever flown to an engagement.

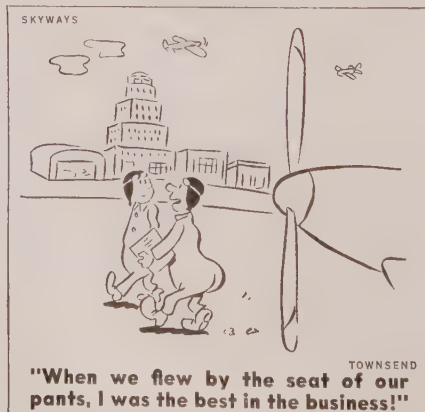
Four Yale swimmers and their coach flew from New York to San Diego in midsummer aboard a TWA DC-4 to compete in the national Senior AAU championships in Southern California city. The Ohio State team flew from Columbus to Honolulu where it competed in the islands.

Primo Carnera, former world's heavyweight boxing titlist, flew TWA from Rome to New York to start his wrestling and ereeing tour of the United States, and Williams, the National Boxing Association lightweight champion, flew overseas from New York to get in extra time before a title match with Ronnie James, British title holder, at Cardiff, Wales. The team of Hawaiian boxers, who competed in the Golden Gloves events in Mexico City last summer, made the entire trip to and from the islands by Pan American *Clipper*.

The Havana, Cuba, polo team flew north to compete in the three-event spring championship handicap at a New York armory, while the Havana pistol team was able to participate in the Georgia state matches last summer and be back in Havana in jig time thanks to *Clipper* wings.

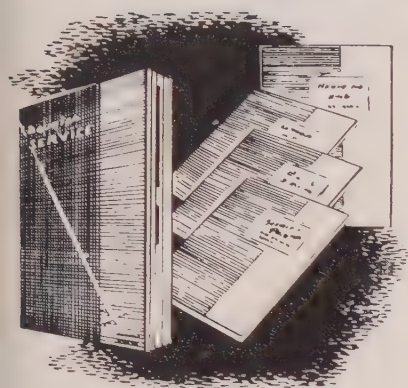
After winning the British Open Championship, Sammy Snead and his golf bag flew back to New York and then on to Kansas City so he would reach the first tee time for the start of Kansas City Open.

The airplane also is opening new horizons for the sports spectator. Not long ago, members of the St. Petersburg, Florida Yacht Club (Continued on page 64)



DOUGLAS 9-POINT SERVICE PROGRAM

...cuts maintenance costs
...keeps planes flying!



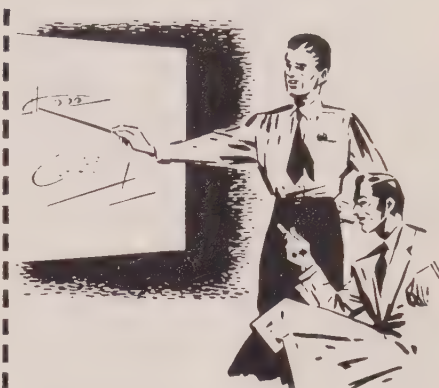
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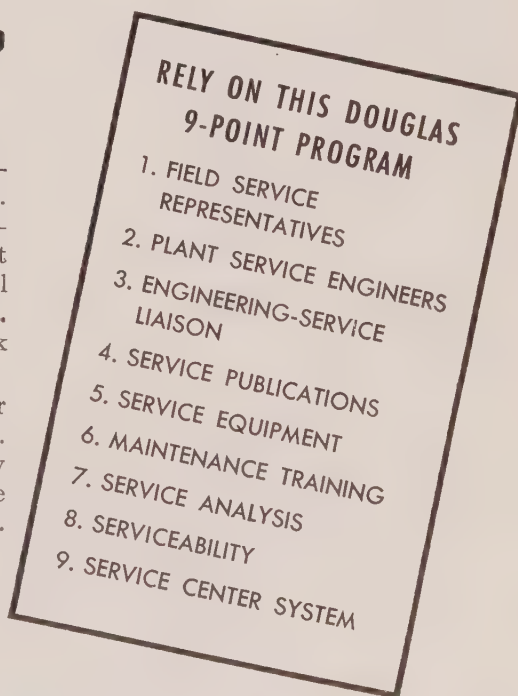
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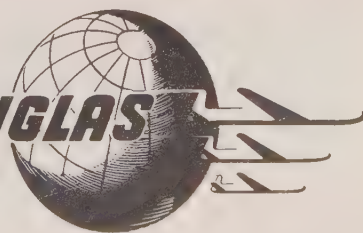
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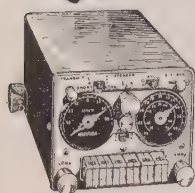
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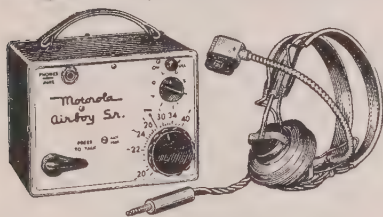


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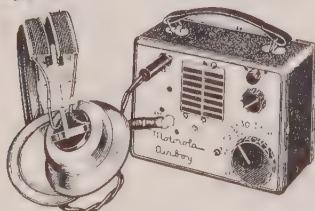
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WASHINGTON NEWS

BY ALICE ROGERS HÄGER

"TERRAIN FLYING," a new "how to do it," will be issued by CAA shortly after you read this. One of the real mental hazards for the personal flyer when he or she starts making cross-country trips is the differences that lie below the wings. Pilots accustomed to their own local conditions are frequently confused and uncertain when they encounter very strange geography. If, in advance, they could talk to experienced flyers in the areas they are approaching, they would gain confidence and know exactly how to handle their flight plans. CAA, taking these facts into consideration, has gathered together into one easily read booklet, the best advice that can be given by the men who know, covering procedures for mountains, deserts, swamps, shorelines and all the other types of terrain an American pilot will meet. Copies will be available through the Civil Aeronautics Administration, Washington, D. C., for a few cents (the price is not set).

T. M. Wayave, Chief, Seaplane Facilities Section, CAA, has good news for those of you with a yen to fly the water route. In the midst of the current aeronautical budgetary drought, induced by our economy-minded Congress, he has nailed down the tidy sum of \$4,000,000, with which he plans to cover the United States with water landing facilities. Within three years, according to Mr. Wayave, there will be 483 seaplane bases built and operating, and no matter where you go, you will never be farther than two hundred miles from a good spot where you can set her down.

In last month's Washington News, we told you that we have been enjoying a local radio program on aviation. The combination of Don Ryan Mockler, Personal Aircraft Council, AIA, and Station WGAY, in its first months on an experimental basis, has been extremely successful. Now Don has prepared a brief, called "How To Go On The Air For Personal Flying," giving details of the proper way to get the neighborhood news of aerial activity and the kind of interesting people to interview behind the mike. He includes a sample script. This is one of the best ways to gain community interest in aviation that can be devised. Copies of the brief can be

had by writing to the Public Relations Department, Personal Aircraft Council, Aircraft Industries Association, Shoreham Block, Washington 5, D. C.

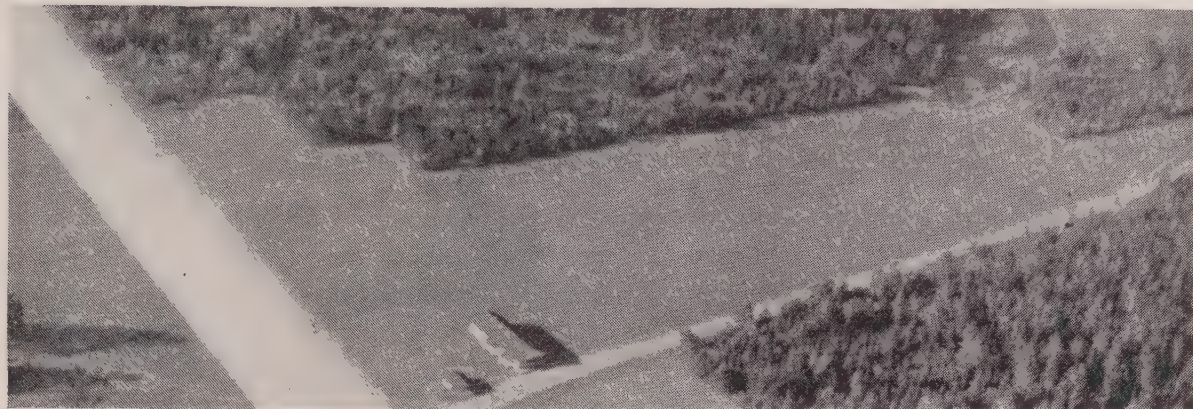
NACA recently demonstrated its new, most noiseless propeller at Langley Field, Va. It is completely different from conventional props, having five, broad, petal-like blades. With this and a muffled engine, 90 per cent of the "noise pressure" of the ordinary propeller is eliminated. Using reduction gears, at 1,000 rpm, it increases speed five mph. The aviation industry is watching with great interest, and NACA is hopeful of its being adopted quickly by manufacturers. Since noise has been the greatest handicap to well-located airfields, far, NACA's contribution to peace and quiet should solve a lot of problems.

PCA Capital Airlines has just turned a neat publicity trick, which could well be adopted by other wide-awake air carriers. Top Washington women correspondents and radio broadcasters were invited by President C. Bedell Monroe to a "Hangar Luncheon" in the attractive Board Room. Chief Hostess Jane White and an assistant served the guests with individual trays of appetizing food, similar to the ones they would have received in flight. After the lunch, President Monroe told the ladies that he wasn't going to make a speech—he merely wanted to call their attention to the fact that Capital Airlines was the largest employer in the District of Columbia and invited them to tour the shops with a special guide. The women reporters, kind and far and wide for their allergy to publicity, were enchanted by such restraint, coupled with a good news line, and handled the stories accordingly.

Canada and Portugal have signed an agreement for air services between their countries. The route chosen to be from Montreal to Azores or Lisbon for Canadian planes, and the same in reverse for Portuguese.

The British Ministry of Civil Aviation has completed a survey of airfields on the route between Hongkong and Singapore and in the area of the China Sea, with special attention to technical services and radar aids.

Sportsman's Stop-Over



***Flying sportsmen, with rod 'n reel or rifle,
will find Prairie Airpark a profitable stop***

IF YOU'RE a flying sportsman with a yen for trout fishing or hunting, lake fishing or just being out in the woods, get out your Lewiston (Maine) chart, find Brownville Junction and there you'll spot an airfield called Prairie Airpark. Load your sports equipment in your plane, gas up and take-off . . . for some of the best hunting or fishing this country has to offer. And don't worry about where you'll sleep or eat . . . there's facilities for both at this sportsman's airpark.

Located just five miles north of Brownville Junction, the Prairie Airpark is just about the last bit of civilization. North of Prairie is nothing but woods and lakes. And what *surrounds* Prairie Airpark is nothing but woods, streams and lakes, too. There are three excellent trout streams right next to the field, all within a five-minute walk, in fact. One mile from the field is a lake brimming with bass, perch and pickerel, and another lake, seven miles away, offers tops in lake trout.

If it's hunting the flying sportsman wants, there's plenty of deer. "A lazy fellow can shoot deer out his cabin window," reports Manager Ed Arbo.

Field facilities include sales and service, plane rental, charter service and flight instruction. But that important "extra" not yet available at many fields is a positive operation at Prairie Airpark . . . there are cabins, rooms and a restaurant. The food is good . . . and what could be better than the smell of hot coffee early in the morning, as you pull yourself out of bed and get ready for a

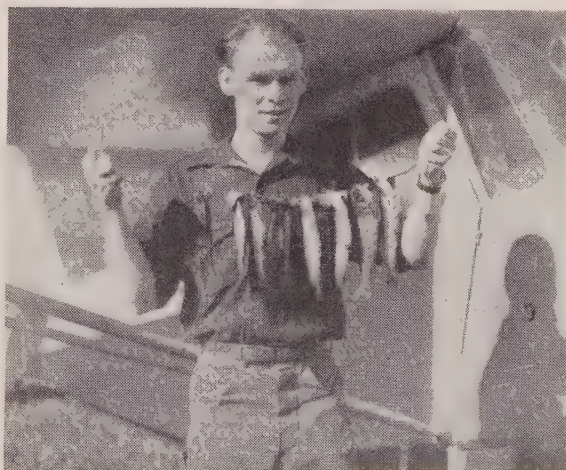
good day of hunting or fishing.

Prairie Airpark has cabin facilities for 20 visitors, and in a pinch could take good care of 40, should some flying club like to run a group flight. And the rates aren't high, either . . . \$6 per day per person for room and meals.

SOooo, you flying sportsmen with a yen for good fishing, hunting, and good food and Maine air, get a Lewiston chart, look for Brownville Junction on it . . . and head for Prairie Airpark.

"Nobody who comes by here has ever gone away fishless," says Manager Ed Arbo . . . so tell your friends you'll fly some fish back to them. ✈✈

FLYER-FISHERMAN Dick Tainter fished a stream next to the airpark and in just 40 minutes he'd caught 10



A GOOD EXAMPLE OF SAFE FLYING

B-1 Beverage Company uses IRVIN Chair Chutes



Irvin Custom-Built CHAIR Chutes installed in a Stinson. CHAIR Chutes are fitted into the back of the chair . . . don't have to be carried around, worn or stored.

Irvin Custom-Built CHAIR Chutes installed in a Beechcraft. CHAIR Chutes have the same comfort and beauty as deluxe airplane chairs . . . do not take up extra space.

**FEEL SAFER . . .
BE SAFER . . .
with Irvin
Custom-Built
Chair Chutes**



● Oliver C. Thener, Vice President of the B-1 Beverage Company, St. Louis, Missouri, is an experienced businessman-pilot. In the past twelve months he has flown more than *ninety thousand miles* in the company's Ercoupe calling on franchised bottlers in thirty-eight states. Mr. Thener believes in flying . . . in *safe* flying. He believes it's just plain common sense to prepare for emergencies. That's why the B-1 Ercoupe is equipped with Irvin CHAIR Chutes . . . for extra flying protection. More and more plane owners are installing Irvin Custom-Built CHAIR Chutes in their planes. Our descriptive circular will give you full particulars about this unusual parachute. Write for it . . . now.

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Should you qualify, please write us.*

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Pacific Coast Branch: 1500 Flower St., Glendale 1, Calif.

Sports Take Skyroa

(Continued from page 60)

Club witnessed the start of the St. Petersburg-Havana yacht race in St. Petersburg and then boarded a Pan American Clipper to Havana to witness the finish. When Louis and Billy Conn fought in New York Yankee Stadium, TWA brought more than 300 fans from Pittsburgh, Conn.'s home town as well as a special flight of Hollywood celebrities from the Coast.

Bob Hope, America's No. 1 comedian and an ardent sports spectator, also has found finding airlines helpful for mixing business with pleasure. Last fall he saw the important Army-Notre Dame football game in New York, spent a day with friends and came back in Hollywood in time for the Monogram rehearsal of his weekly Pepsodent radio show. When his radio show goes touring, Hope usually charts an airliner. "The big plans are just made for me," says Hope who, you remember, flew to every corner of the world to entertain our G.I.'s during the war. "When they're just right for me, the chairs of seem to be soft enough for Bing Crosby," says Bob. "Bing is getting old and needs an easy chair. When they add the easy chairs, we'll go together 'round the country see football games. 'Course someone would like to read the stadium programs to Bing—it would be fun anyway."

The "fighting Illini" footballers of the University of Illinois, winner of the Big Ten championship and the Eastern representative at the 1947 Rose Bowl contest, flew to go last autumn at Pittsburgh, Detroit and New York City. C. W. Lyon, Illini business manager, said that it was decided to use the TWA liners because of the time that could be saved by this method of travel. He pointed out that the players were away from their classrooms for a shorter period of time and that training problems were minimized.

In their first big year since the war, sports with wings have become an important part of the American scene. When the larger, speedier planes are added by the airlines, new kinds of possibilities will be opened.

This is just what Eddie Rickenbacker envisioned back in '29.

"You just wait and see," the flying ace went on that night, "one of these days there even be flying race horses across the ocean. The Kentucky Derby winner flying to meet the British champion."

And as further proof of the fact that Eddie Rickenbacker talks he knows, he's talking about—last fall saw six thoroughbreds fly in a specially equipped DC-4 from Shannon, Eire, to Burbank, California, so they could run during the winter meeting at Santa Anita.

The \$250,000 worth of horse flesh made the more than 6,000-mile jaunt in 29 hours. The only two stops were at Newark, New Jersey and at St. Joseph, Missouri. The horses traveled in special individual flying stalls two abreast. Charles Leavitt, trainer in charge, said they were in excellent shape on arrival in Burbank.

Today quite a bit of precious horse power is traveling by air. A favorite can now go in races thousands of miles apart. Can Eddie know what he was talking about when he said it may not be long before our Yankee Derby champion will be flying to England to meet the British best.



BOOK MART



1. THIS MONTH'S FEATURE:

AIRCRAFT YEAR BOOK for 1947, Howard Mingos, Editor. The new edition of this standard reference work of 512 pages, 108 halftones and 50 aircraft drawings, contains 13 chapters covering all branches of American aviation, including the present race for air supremacy, technical developments, the Army and Navy air forces, air transportation, private flying, aviation training and education, airports and airways, details on the latest developments in aircraft, powerplants (including jet propulsion), and accessories; also summary of the Strategic Bombing Survey of Japan. Classified directory of the aircraft industry, and a valuable section of statistical tables covering flying facts and figures, civil and military. Just off the press. \$6.00

AIRCRAFT YEAR BOOK (other editions). The important war editions, 1944, 1945, 1946 contain 2,300 pages, 33 chapters, 482 illustrations, 100 design drawings and give our complete air war record, Army-Navy-Marines industry, from Pearl Harbor to VJ-Day. The set of 3 (\$18 value), postpaid for \$9.00

PICTORIAL HISTORY OF THE AAF by the Historical Office of the AAF. This is not a history of the AAF in World War II, but a complete story in pictures, paintings descriptive captions and text covering the entire span of military aeronautics in the United States. A beautiful volume. Over 600 photographs. Second printing. \$10.00

AIRPORT OPERATION AND MANAGEMENT by Charles A. Zweng. Designed as a text for courses offered in colleges and aeronautical schools. Full of practical information and suggestions for airport operators and instructors. \$4.50

GAS TURBINES AND JET PROPULSION FOR AIRCRAFT by G. Geoffrey Smith, M.B.E. This improved and enlarged second American edition of the original British work continues to fill a definite need in this country as the only popular book in its field. Second printing. \$5.00

BASIC AIRPLANE MECHANICS by H. Lesly. This book covers the important facts and procedures which the plane mechanic must know to keep planes in working order. Illustrated. \$2.75

7. **THE FLYING NORTH** by Jean Potter. This is an unusual, authentic story of those famed flying heroes, the bush pilots of Alaska, the opening chapter in the saga of the real conquest of two of man's last frontiers—the American Far North and the unknown sky above it. A fine gift. \$3.75

8. **COMMAND DECISION** by William Wister Haines. A fast-moving novel with Brigadier General Dennis as hero, a single-minded airman who commanded an Eighth Air Force heavy bomber division, and who only wanted to fight the war—not the Army, the Navy, the British, Congress, the press and the people. He did pretty well, too. \$2.50

9. **PRACTICAL AERODYNAMICS** by Bradley Jones. This book is your authority on aerodynamics. It has the answer for all questions. No mathematical training higher than elementary algebra is needed to completely understand this book. It is practical for both the beginner and the specialist. \$4.00

10. **YOU CAN LEARN TO FLY** by Beverly E. Howard and William D. Strohmeier. This is an excellent introduction to flight principles combined with sound and hearty encouragement to begin taking lessons. Illus. \$3.75

11. **THE ART OF FLIGHT INSTRUCTION** by Edward C. Bailly, Jr. The author has distilled into this the essence of his long experience in teaching hundreds of pilots. \$3.00

12. **SOARING FLIGHT** by Terence Horsley. An up-to-date definite book on motorless flight by an experienced glider pilot. Is well illustrated, and interesting reading for even armchair pilots. \$4.00

13. **YOUR FUTURE IN AVIATION** by J. Fred Henry. If you want a book that will tell you exactly where and how to find the job you want in aviation, this is it. \$3.00

14. **THE SOCIAL EFFECTS OF AVIATION** by William Fielding Ogburn. This is a very able attempt to foresee the changes that are coming to the world because of aviation. 755 pages, including complete index. \$5.00

15. **THE NAVY'S AIR WAR** by Aviation History Unit Op-519B DCNO (Air). This is the official story of the naval air war in all its aspects. Photographs and maps. \$3.50

16. **THE BRERETON DIARIES: The War in the Air in the Pacific, Middle East and Europe**, by Lieut. Gen. Lewis H. Brereton. A highly readable historical document. \$4.00

17. **DEVELOPMENT OF THE BRITISH GAS TURBINE JET UNIT**. Ten valuable lectures given at the Institution of Mechanical Engineers, London, only available in American edition. A must for students. \$3.00

18. **GAS MODELS AND ENGINES** by Wm. Winter and W. L. Schroder. The only complete and up-to-date book about building and flying gas model planes. \$3.00

19. **AIRCRAFT ENGINES OF THE WORLD** by Paul H. Wilkinson. This new edition provides, the most up-to-date, complete and authentic book on Reciprocating Engines, Jet Engines and Gas Turbines, and Rocket Engines now available. Covers 11 countries (including 15 engines of the U.S.S.R.), complete data on 125 piston engines (57 new) and 26 basic jet engines (15 new). 160 illustrations. \$10.00

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— August, 1947, issue —

London to New York

(Continued from page 34)

two schools of thought. One group argues that the airscrew-turbine is the next logical development since it requires a less radical break with the conventional engine-propeller combination, and is more adaptable to present types of airframes. They emphasize the *aircraft* aspect of the problem. The other group is thinking more in terms of *power plant* and stress the fact that the turbojet is simpler and further advanced than the turboprop (partly on account of the war). They admit that radically new airframes will be required in order to use the pure jet engine to advantage, and that various collateral problems (such as cabin pressurization, faster traffic control, etc.) must be worked out for its successful use. However, they feel that when all this is done, we shall be further along than if we devote too much attention now to a step which admittedly is only an interim solution. While both groups are getting some encouragement from Government, present plans seem to indicate that the airscrew-turbine crowd are getting a pretty good chance to show what they can do within the next two or three years. As compared to the piston engine it is expected that the turboprop will provide more horsepower per unit of weight, more actual power for take off, slightly more payload and higher speeds.

Turbo-prop-jet Airliners

Getting down to detail, the big airliners which are scheduled to be changed over from piston-engine to jet-cum-airscrew (or built straight away for turboprops) are the Handley Page *Hermes V*; the 110-ton Bristol 167 (Brabazon I type) for the London-New York run; the Saunders Roe S/45 100-ton flying boat; the Avro 45-ton experimental model of the *Tudor*.

The existing medium-sized aircraft which are to be converted are the Miles *Marathon*, and experimental Vickers *Viking* and the Airedale *Ambassador*. Firm orders for nearly all these aircraft have been given, and most of the turbo-prop-jet engines have been tested and are on the way to production. The first of these is the Bristol *Theseus* of 1,950 shp (shaft horse power) and 500 pounds of jet exhaust thrust, two of which are now being flight tested as the outboard motors of a big Avro *Lincoln* bomber. The Armstrong-Siddeley *Python* (3,670 shp, plus 1,150-lb. thrust) is the most powerful turboprop yet to be announced; Armstrong-Siddeley has a smaller unit of this type, the *Mamba* (1,010 shp, 320-lb. exhaust thrust), which has been specified for several installations in the new program.

Three other airscrew-turbines are well along in the test stage, including the Rolls-Royce *Clyde* (3,000 shp, 600-lb. thrust), the Bristol *Proteus* of roughly similar output, and the Napier *Naiad* (1,580 shp, 400-lb. thrust). These make six British turboprop engines in advanced stages, with three others announced, the Bristol *Janus*, a small compact Fedden unit called the *Cotswold*, and a small Rolls-Royce unit in the class of the *Mamba*, known as the *Dart*.

Turbojets Too

To get the pure jet airliner program going, three orders have been placed thus far: the

Armstrong-Whitworth AW-52 flying wing, powered by two Rolls-Royce *Nenes* of 5,000 pounds thrust, prototype of a large airliner (AW-55) for the early 1950's; a test model of the Vickers *Viking*, with two *Nenes*; and six *Tudor* Mk. VIII airliners have been built and should be flying by early fall, with an estimated speed of 400 mph. One of the *Nene-Tudors* will be given to Rolls-Royce for flight testing by a team of turbojet specialists; one will go to the cabin pressurization people, one to the de-icing crowd, one to British European Airways for testing on aircraft traffic problems, etc., another to



the airframe structure experts, and the sixth model will be retained as a spare. It is expected that by such team-work the program for turbojet-powered airliners will be greatly speeded up. Results of all this testing will be incorporated into a project which the British Civil Air Ministry is counting on heavily—a fast, high-flying jet airliner to be built by the British Electric Corporation. Some flight-test experience with turbojet airliners is being built up with the two *Nene*, two *Merlin* version of the *Lancastrian*, which has been flying since last August, and with the more recent two *Ghost*, two *Merlin Lancastrian*. In both models, after take off, cruising on jets is quiet and vibrationless.

In addition, there is a prototype on order for the ultra-modern de Havilland 106—a swept-back wing pure jet 30-seater of revolutionary design, based on the small DH 108 *Swallow* which flew last summer, and in which Geoffrey de Havilland lost his life in a flight which may have been well into the transonic speed range. This airliner is expected to be capable of a 550-mph cruising speed across the North Atlantic, and it should be flying by 1950. Some engineers, however, feel a bit dubious about taking two such big bites out of the apple at once—turbojets in a commercial application, and the tricky aerodynamics of the flying wing. In the latter category it is generally agreed that the United States has a lead over Britain.

Turbo-prop-jets Established

The second period of 1950-55 should, therefore, see Britain's overseas and internal routes flown for the most part by turbine-airscrew airliners, ranging from the giant 110-ton *Brabazon I* on the North Atlantic to the 18-seater *Marathon* on internal lines, with some pure-jet airliners also flying.

This brings us to the second jet period (third period of the program as a whole, from 1955 onwards), when anyone's guess is as good as mine. By then, as I have said, we should have the DH 106 jet flying wing already operating on the North Atlantic, the British Electric jet aircraft referred to, prob-

ably the Bristol heavyweight *Brabazon* and maybe the Avro *Tudor* (Brabazon as well, both with turboprops. On Empire runs there should be the *Hermes V*, and the SR/45 giant boat (for BOAC), and the *Ambassador II*. On Continental and feeder routes the *Viceroy* or the AW 55 (or both) and the *Marathon* will be getting obsolete. I don't think anyone can predict at this stage what the replacements for all these aircraft will be, except that they will probably be pure jets.

Although Britain has her engine and airframe program for the first jet era pretty well in hand, and will have her first turbo-prop-jet airliner flying by late 1947 (the *Viceroy*), there are other attendant problems which have to be solved. The main one is pressurization, since nearly all the gas turbine machines (especially the DH 106) will operate at 25,000 feet or above. Fortunately most of the pressurization bugs have been overcome, and I myself have flown happily in the *Tudor I* at 26,000 feet, with the equivalent air pressure in the cabin of 7,500 feet. The next stage is to aim successfully at 30,000, 35,000 and 40,000 feet, and work on this is in hand but far from complete.

Fuel Consumption

The fuel consumption story of the gas turbine airscrew engine is a promising one. The *Mamba*, for instance, uses only 79 gallons per hour at 13,750 rpm at recommended economical cruising power. The *Theseus*, nearly twice its horsepower (2,250), uses 150 gallons per hour. The *Mamba* and *Theseus* consumption is 25 per cent higher than that of comparable piston engines, but this is compensated for by the increase in speed and greatly reduced engine weight. An increased frequency of services per aircraft will also be on the credit side for the operating company.

The consumption of the pure jets is still under test in the *Nene*-powered *Lancastrian* but meanwhile Major Frank Halford of de Havilland's has produced a very illuminating paper on long-range pure-jet airline operation. Major Halford uses, in his example, a variation of actual figures for the DH/106, which makes his views more authoritative.

His specification, given to the Royal Society of Arts, was for an aircraft of 190,000 pounds all-up weight (bigger than the DH 106) capable of carrying 50 passengers and 3,500 pounds of mail between London and New York at a cruising speed of 600 to 650 mph at 40,000 feet. Major Halford said that to do this, he needed four pure jet engines, which, at 40,000 feet, would deliver a total cruising thrust of 10,200 pounds, or 2,550 pounds per engine.

Such engines would have a sea-level thrust of 12,000 pounds each, and would have a specific fuel consumption of only .88 pounds per-hour, per-pound of thrust—not an optimistic figure considering present compressor and combustion efficiencies. In fact, at 600 mph the present consumption figure comes out to well below this, and is only .54 pounds. Tankage for 10,000 gallons of fuel would be needed. The London-New York trip, allowing for an average westerly wind of 50 mph, would take seven hours, and New York to London, six and a quarter hours. Single fare, \$60 (\$240). The cost of such an aircraft might be £500,000, or \$2,000,000, but a fleet of six, properly used, would transport yearly as many passengers to and from New York as the "Queen Mary."

Chesapeake

(Continued from page 37)

Chesapeake Bay outfit offers you fishermen. The South River Fishing Fleet specializes in fishing for game salt water fish with fresh water tackle. Last season hundreds of anglers were introduced to the art of "chumming" with fly rods for striped bass or rockfish. Most numerous of the Chesapeake game fish, live shrimp, the boatman brings a school of these finny speedsters right up to the boat, and within a few minutes everybody is fighting fish that weigh from a half pound to 10 or more pounds. In the Chesapeake, rockfish weigh as much as 50 pounds. Sometimes the stripers average 10 to 15 pounds each, but we won't kid you—you can't catch them that big every day. One thing is certain, however—you'll get stripers. The average daily catch by those captains who specialize in "chumming" with live grass shrimp is nearly one hundred striped bass per boat. Catches of 200 to 300 are not unusual.

These stripers are caught without a sinker of any kind to impede the fight. Fly rods are rigged with a single nylon leader 20 inches long to which is tied a thin wire, long-shanked hook. Some sportsmen prefer to use a streamer fly and spinner or an artificial shrimp for a lure.

A thing to remember, though, is that no more than five persons can fish from one boat in this manner. The fish hit all lines at the same time and, with all that fight going on around the boat, it is impossible to prevent tangled lines and lost fish, if more than five fishermen angle at one time.

Those who fish with fly and spinner, stand at the boats' stern sheets and cast directly into the school of game fish that the mess of live shrimp have brought to the surface. Without a doubt, this new sport represents a large chunk of heaven to the fly caster, who usually waits a long time before he gets a "strike" in his pet stream at home. Some favorite patterns for this kind of fishing include Royal Coachman, Red Ant, or plain white streamer, with the optional choice of having either a small silver, gold willow-leaf or a round-type spinner ahead of the fly.

The best fishing grounds for "chumming" are located in a strong tide-rip, where the boatman's chum line or fish advertising will be carried out in the current for a great distance. The sportsman rigs up and stands by for action, letting the current carry his line some 20 yards out from the boat.

Usually, the wait is not long and fish will be seen far astern breaking water in pursuit of the live shrimp that skip along the surface in an attempt to get away. Soon more striped bass join the shrimp chase and all the fish work their way nearer and nearer to the boat. Brother—that's when you get ready! A line tightens and the angler reels in to discover that his bait has been stolen. He quickly reads more lively shrimp on his hook and sets again, paying out line toward the oncoming fish. The next minute the action starts everybody has a strike and nearly all are reeling in the silver rockfish that streak from side to side and all over the place. There is no time now for the skipper to bait hooks. Each sportsman baits his own and even the ladies love to do it. Those rock are the bait-eatingest fish that ever lived, and if you miss the strike, you don't get a second chance until you reel in and bait up again. When the

sport is as its height, books rarely touch the water before the fisherman gets a hit and his rod is doubled up with strain.

Between tides and lulls in the fishing, aching arms and wrists are rested by the sportsmen who eat a snack or down a cold beer before trying their luck again. Even in the moonlight the gamey rock will hit in a chum line and it's "tops" in sport. Broken leaders and hooks lost to really big fish are common but nobody cares, the fun is worth it. Small stripers below the legal length of 11 inches are returned to the water.

Sometimes a gamey tautog or blackfish will rise in the chumline and grab a lucky angler's hook. Then it's a long fight before the 3 to 10-pound prize is netted. More often, croakers or hardheads, weakfish or trout, spot

and other fine food and game fish answer the chum lines call and follow the shrimp right up to the boat where they are hooked, played, and caught. Live pin shrimp are the natural food of all fish in the Chesapeake.

Live shrimp for chumming are caught in push-nets from the grass beds along the bay shores, where they usually hide from game fish. There are many thousands of shrimp in a gallon, and it is lots of work to catch them. The usual price is \$6.00 a gallon, with the best supply available in early summer and late fall. Shrimp are a necessity if you wish to be certain of catching fish. During mid-summer to be sure of a supply of bait, advance orders must be given. While trolling for stripers is grand sport, this form of fish-

(Continued on page 69)

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Flying Weekend

(Continued from page 38)

Peconic Bay, near Southampton, Long Island. We were in New Jersey. Between us and the beach were 120 miles and the world's worst traffic jam. The drive was a four-hour task and included much bumper-to-bumper waiting for the traffic to unsnarl. By the devious routings of train, ferry, subway, taxi and more train, it was equally long. The six to eight hours out of the Sunday didn't leave much time for visiting, so flying down seemed to be the natural out. But when we checked, we found that the nearest airport to the beach was still 15 miles away on the back roads. And we didn't want to hang that one on our obliging host.

Here was the dilemma right in our laps.

But we did fly down, and we *didn't* end up in the woods. Instead we came in less than 200 yards from the Sunday roast in the oven, and not 25 feet from the very water's edge.

So it can be done, and it can be done rather simply, with a bare minimum of landing facilities. And you won't have to wait for helicopters, or roadable planes to do it, either. For insuring that it can be done is as important to aviation men today as door-to-door delivery is to the Post Office. And they know it.

The problem is being tackled from two aspects.

First, more versatile airplanes are being built. New features will help overcome the inherent difficulties of landing on the spot. More powerful engines in small planes, and planes designed to take off in the minimum space and absorb the maximum shock will ease the way towards the improvisation of many landing areas.

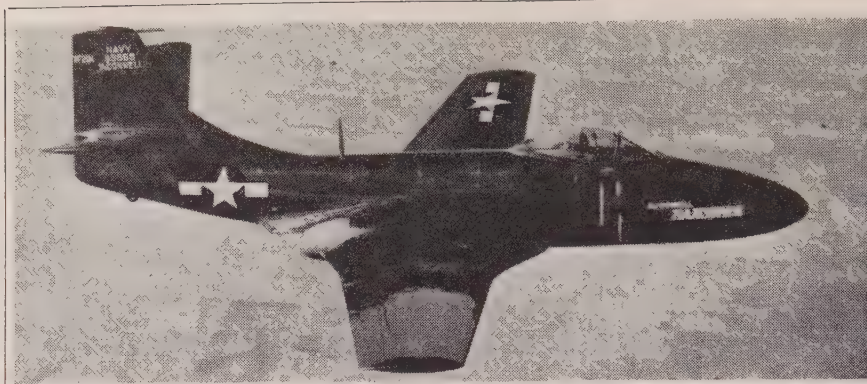
The second approach is the designing of airports around the existing planes. A program is now underway to provide the country with more small airports for the convenience of the private flyer. In 1944 there were 3,086 fields serving America's pilots. On January 15, this year, this number was up to 4,431. Much of this increase has come about through private construction. Of the 3,000 fields studied in a preliminary survey, 2,900 were laid out to be "Air Parks" or "Skytels," the air-minded equivalent of highway "motels," complete with cabins, recreational facilities, etc.

The fact that our Sunday trip turned out to be successful is due to development along both these lines of progress, for we had at our disposal a close-to-home small airport as well as a most versatile plane.

Abe Steppel's Hanover, N. J., airport, a field with hayseed still in its hair, was our point of departure. Like many another small airport, Hanover, somehow or other, "just happened." It seems a man drove by one day, and thought some of the acreage looked like it might do for a landing and take-off now and then. Abe being an agreeable individual, said O.K., and before he knew it, he was in the airport business.

Also like many other fields, it reverted to type during the war, and the one runway went back into cultivation to help ease the food shortage.

There are still chicken feathers on the earth floor of the hangars, and you'd never know it was an airport. Entry is along a driveway past the farm house, the barns, and



New Jet Fighter

One of the Navy's newest and hottest fighter planes is the McDonnell *Banshee*. Powered by a Westinghouse 24C jet engine, the *Banshee* has a top speed of "... over 600 mph"

down a lane through the apple orchard. An extension on the barn was the original hangar, holding no more than three planes, but there is room now for upwards of 20 with plans afoot for more individual "Tee" hangars.

Abe is playing it cagily, keeps a plot of corn growing, has some dairy stock and a flock of chickens. The barn sports a checkered roof and an air-minded wind sock, but inside are stalls for the cows, feed bins, farm implements, and the chicken roost. On the days nobody's flying, it's not surprising to see a cow or two cropping away at the runway grass. Abe is as likely to be seen cultivating with a tractor as he is pushing planes in and out of the hangar. And feeding the chickens is as much a chore as gassing his growing brood of airplanes.

Chickens and airplanes, by the way, have sometimes mixed no better than cats and dogs. Abe's neighbor figured that low-flying planes would scare his chickens out of efficient egg laying schedules. Litigation on similar cases has gone as far as the supreme court of the land. So across the winding road from the end of Abe's only runway, the neighbor, one day, planted a row of fast growing poplar trees. They were soon high enough to be a continual source of annoyance to the pilots. Abe was silent on the matter, but one night a group of his students cut down the lot of them. Not pleased with the turn of events, the neighbor planted some more, and this time took the precaution to encase the bottom eight feet of the trees in sheet steel.

Oddly enough, Abe himself has a flourishing chicken yard. And it is not several hundred yards from the field, but directly adjacent to the runway. Taxiing planes pass within a few feet of the fence. "It ruffled a few feathers at first, maybe," says Abe, "but I haven't had any trouble over it. Still get all the eggs I used to. And no complaints from the customers either. My hens don't seem to mind the planes—maybe they got used to them. Now if a chicken hawk takes a swoop at them—that's different."

But the row of steel encased poplar trees still stands across the way—a monument to the kind of resistance new fields have met in many places.

We took off at our leisure Sunday morning. Harriet Arnold, a photographer friend with a hankering to try a few pictures from the air rode the back seat.

The plane was a converted Army plane, a

Stinson L-5, designed specifically for ease getting in and out of tight landing areas. It was the famed "Flying Jeep," a darling of the Army liaison pilots attached to the artillery forces who used it to radio back target information. It had shed its coat of olive drab, after purchase from the Army, and came out of the overhaul shop a polished blue and yellow.

About 50 minutes after take-off, we were circling the beach from which our friend waved a greeting. The 120 miles by car had been cut to 95 direct air line miles, and time from four hours to less than a quarter that. Better still, the long-drawn-out session on the road had turned into short minutes fun for me, and excitement for Harriet.

After take-off, we gained altitude from the field and soon were over the Jersey meadow. The New York City skyline, at its best, stood out from the horizon, thin square fingers gray against a light blue backdrop. Gradually the city worked below us. From above it appeared neat and orderly, belying the confusion of traffic we knew was there. Beyond, Long Island and the Sound stretched out like a tremendous map laid down just for us in the plane. You get that detachment in the air. Every detail almost to the horizon was clear—it was one of those days.

The closely packed living squares of Brooklyn and Queens gave way to the rolling estates—cameos of landscaping that can be fully appreciated only from the air. Then the brown squares of the Long Island tracts.

Harriet took over for a while, and learned the simple techniques of flying straight and level. "But every time I do any thing," she said, "I feel as if I'm doing something drastic." She'll get over that.

We had lost some altitude, and were still flying low enough (and legally) over the beaches to see isolated groups of bathers waving at us. Then we turned inland towards Peconic Bay. Determined to save host a trip to the airport, we started looking for landing possibilities. There were dozens of fields in the vicinity, many of them better for landing than the cow pasture and beach we finally selected. But we figured closer, the better.

In picking a field from the air, a pilot can miss some terrain changes when looking directly down and he may miss seeing some obstructions if too high. So a few low passes

(Continued on page 78)

Chesapeake

(Continued from page 67)

g is never sure; in fact good catches are the exception not the rule, and then mostly in the early and late seasons only. Chumming is good from June to the first of December. The boat captains who specialize in chumming with shrimp rarely do any other kind of fishing. They have their pet "hot spots", and really know their business. The kind of knowledge that is only learned from a long association with the water. Season catches of these specialists average 3,000 to 5,000 ripe bass to the boat.

Probably one of the most famous chumming tide-rips on the Chesapeake is at the 12-year-old Thomas Point Lighthouse, where rockfish can be found the year 'round. Beneath the lighthouse spider legs, you can always see rockfish lying in the shadows of the two big protecting stone piles, and some of them may take your hook this very season.

Other Chesapeake Bay fishing includes trolling for big rock, trout, and sometimes bluefish. The next most popular sport is bottom fishing for croakers, spot, trout, King William perch, flounder, etc. All these fish are fun if caught on light tackle, and usually the catches run high. Bottom fishing is done while at anchor or drifting over oysterbeds, where many fish are found.

Tackle requirements are simple—a 5½ or 6-foot solid steel bait casting rod with a reel (that has a drag) holding 100 yards of 10- to 20-pound test nylon line. This is a good all-purpose outfit at reasonable cost.

Fly rods 8½ feet long weighing from 5 to 10 ounces, of medium action, fitted with any reel holding 40 yards of nylon fly line and 100 yards of 10-pound test "backing" are standard. Trolling rods usually have boat mounts and 6- to 8-ounce tips, a locking reel with a 300-yard reel filled with 12- to 18-thread cuttyhunk line. Rowboat fans get their fun at low cost, and many use outboard motors to reach distant points. The splinter-fishing boys make some real catches of fish and frequently stop fishing to dip a mess of hard-boiled soft crabs along the edge of shoal water.

Night fishing, especially on moonlight nights, is very popular on the Bay. Top fish of the dark hours are the trout or weakfish that bite soft or peeler crab baits cast into shallow water far away from the boat. Trout usually weigh from one to nine pounds each and put up a real fight when hooked. The best time for salt-water trout are the moonlight nights in August, September and October.

In the lower Chesapeake, anglers sometimes catch Cabio, or crab-eaters that weigh from 15 to 90 pounds. These sergeant fish put up a strong fight, but are excellent to eat if you get them. Black drum of similar size are caught all over the bay where oyster beds can be found. Down at Cape Charles near the mouth of the Chesapeake, channel bass are caught in early summer.

If this bit of fishing news does not give you ideas for pleasant hops this year, we don't know what will.



d. Note—Lee Airport is Chesapeake Bay's only complete airport: Two runways 2800 & 1000 feet, hangar, gas, oil, repairs and easy approach in a flat terrain, only five miles from the U. S. Naval Academy at Annapolis. They will welcome SKYWAYS readers, day or night, says the manager.

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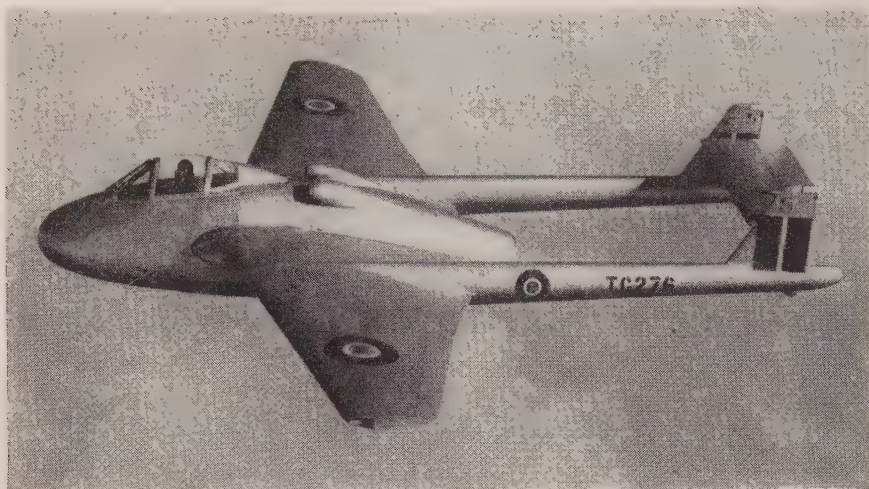
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NENE-VAMPIRE has additional air-intakes behind canopy for double-sided impeller

MILITARY AVIATION

Ubiquitous Vampire

The *Goblin*-powered *Vampire*, one of the best flying and easiest handled of the current crop of world jet fighters (top speed 550 mph) is now in service with the Royal Air Force, Royal Navy, Swedish and Swiss air forces. Both jet engine and airframe are built by de Havilland. After extensive winterization tests in Canada, similar to those previously carried out in Sweden, the *Vamp* has been selected for use in the Royal Canadian Air Force. Australia, which has its own brand of difficult flying and servicing conditions, has had a *Vampire* under test for more than a year, and has announced that it would be manufactured there for service in the Royal Australian Air Force.

An experimental *Vampire* Mk. II has been fitted with a Rolls-Royce *Nene* engine (5,000 lbs. thrust), with double-sided air impeller. Full thrust is not obtainable, however, as the *Vampire* air scoops were designed for the *Goblin* (3,000 lbs. thrust), which has a single-sided impeller. The *Nene-Vampire* shows improved take-off, climb and ceiling, but is no faster than the *Goblin-Vampire*. An experimental *Vampire* III is powered by the de Havilland *Ghost* turbojet (5,000 lbs. thrust), and has a very fast take-off, but is not expected to go into production. The real answer will probably be still another version with an improved *Goblin* jet unit, which is producing 3,500 lbs. thrust with no increase in size and weight over the earlier model.

Souped-up P-80

It is along the lines of this last solution that the Air Force is improving the performance of the Lockheed *Shooting Star*. The P-80B is now in production, powered by an improved version of the Allison-built J-33, with water-methanol injection for extra bursts of power. Flight tests of the new P-80 show an amazing performance at all altitudes.

In comparing speed figures of well over 600 mph for both P-80 and P-84 with Britain's twin-jet *Meteor*, it should be remembered that the latter has more than twice the thrust power for generally comparable weight.

Air Force Day

August 1, 1947, is the 40th anniversary of the U. S. Army Air Forces. Nation-wide activities will be conducted to support Air Force Day, sponsored by the Air Force Association, a national organization of AAF veterans of both world wars. "Air Power is Peace Power" is the theme, and the entire program will stress the relationship between a strong air force, national security, and preservation of the peace.

Russian Jet Fighter

Some months ago reports turned up in England that the Russians, helped by German technicians, had built the world's fastest airplane, with a speed of 660 to 670 mph. It was said to be a development of a turbo-jet fighter with which the Germans were experimenting toward the end of the war. Walter Bedell Smith, back in Washington for consultation early in May, stated that in addition to a four-engine heavy bomber (possibly a commandeered B-29 which landed in Siberia during the war) there were over 100 jet-powered fighter planes over Moscow during the very impressive May Day parade and air exhibition.

An independent report has verified the top speed of a Soviet jet fighter as "above 660 mph." The German technicians who helped in this achievement are certainly from the Junkers Motor Works where the wartime Jumo 004B was developed and produced in some quantity, and which was located in the Russian zone of occupation. The standard 004 turbojet, used for example in the Me-262 twin-jet fighter, had a thrust of 1,960 pounds, using an 8-stage axial-flow compressor and single-stage turbine. After V-E Day, Technical Intelligence turned up data on an advanced model, the Jumo 004H, with an 11-stage axial compressor and 2-stage turbine, along with other devices for increasing thrust such as after-burners, etc. Total design thrust was 3,960 pounds, and may since have been raised to 4,500 pounds or better. Don't look for one of these new Russian fighters over at Muroc Lake, or anywhere else just yet, to take part in world speed record attempts!

American turboprops

Except for the Rolls-Royce *Trent*, which was a *Derwent I* turbojet modified to take a propeller and which was flight tested in a special version of the *Meteor* in the fall of 1945, the first turbine-propeller to fly was the General Electric TG-100 (AAF, T-31). This unit was designed in early 1942, and was test-flown in the Consolidated Vultee XP-81 in January 1946, and in the Republic F2R-1 in October 1946; also in a special installation in a Curtiss *Commando* (C-46). It was to have been the powerplant of the Martin 304 turbine-powered, high-speed medium transport to be built for United States Lines. The T-31 has never produced its signed output of 2,400 shp and 600 lbs. thrust. Only a few were built, and it has now been dropped. The Martin 304 project has been postponed until a suitable turbine-prop of about 2,500 hp has been developed. Mr. Glenn Martin in the testimony quoted in June's *Skyways* (page 14) said that he could fit a British turbine-propeller (probably the *Theseus*) to aircraft his company had under development, but that he would wait for a U.S. product. Mr. Laddon, chief engineer for Convair, is in the same boat with a special version of the Model 240, and there are lots of others. The Westinghouse turbine-prop also has been dropped, and it is anybody's guess as to which of the other turbine-prop engines will be ready first, and when that will be. One of the nearest is the Wright XT-35 due to be flight tested on a B-17 this summer. This is a much larger unit, with initial rating in the 5,000 class, with development possibilities to considerably higher than that figure.

This is more powerful than anything announced by the British. Their biggest is the Armstrong-Siddeley *Python* (3,650 lbs. exhaust thrust), which has been extensively test running, now being flight tested in an Avro *Lancastrian*.

Jet Propulsion Story

As No. 4 of their *Adventure Series* of educational "comics" which have grossed more than a million copies each, General Electric Company has chosen *Adventures in Jet Propulsion*. In 16 pages the general working principles of the jet propulsion gas turbine are clearly explained, the secret story of Whittle's struggle to develop the turbojet in England, the entrance of the Army Air Forces and General Electric into the picture, the successful flights of the Bell XP-59, Lockheed P-80A, and future applications.

High schools, CAP cadet groups, Scouts, Wing Scouts and similar groups obtain lots of 50, 75, or 100 (maximum) copies by addressing General Electric, Schenectady, N. Y.—Dept. 6-237.



AMERICA'S FASTEST bomber is Convair four-jet XB-46, speed well over 500

FLYING SPORTSMAN A

Sky-High Skooter

(Continued from page 45)

far. However, it takes some "jack-knifing" to get into the cockpit.

"We designed this plane," said Mr. Thorp with a grin, "for the average lightplane pilot and his wife who would dress for the occasion. This ship wasn't designed for the tightly corseted female."

The "kee" midway between the seats makes a convenient step for entering the cockpit and there is no reason for soiling one's seats by walking on them. This writer is nearly 6 feet, 2 inches tall, and was quite comfortable once seated. There is a surprising amount of leg room.

Conventional flight instruments are placed directly in front of the pilot and the right half of the instrument panel is available for radio or other extras that an owner might want for long cross-country flights. To keep weight and cost to an absolute minimum, sound-proofing is restricted to the area under the instrument panel and directly back of the engine.

"The easiest way to check out a pilot in a plane with single controls," said Mr. Thorp, "is to fly him around the field once as a passenger and demonstrate just how a little plane handles. We could have added dual controls, but it would have cost the price another \$50. We haven't completely decided yet on this single control set-up, but you never use dual controls in our automobile."

Mr. Thorp flew a quick demonstration loop and then climbed out of his new design. "It's all yours," he said over his shoulder, "take it out and do anything you want with it."

To make the gross weight as near normal as possible, the writer's wife went along as passenger. When a passenger climbs up over the trailing edge of the wing, the little plane sits back in a nose-high angle. But as soon as the throttle is opened to taxi, the nose drops down and the soft shock absorbers assume normal position. Taxiing in the *Skooter* is a pleasure. Visibility is excellent and the low-to-ground wings will pass safely beneath the panels of most parked airplanes. It is easy to get into the habit of taxiing too fast, but the surprisingly efficient hand brake brings the plane to a quick stop. With the rudder pedals operating the nose wheel, both hands are free to operate the throttle and brakes. On a hot day there is insufficient ventilation on the ground. A single sliding section of the plexiglas of the left door supplies the free air entering the cabin. A second sliding panel or snap vents will be added on subsequent models as will a cabin heater. Run-up in the *Skooter* is very simple. The gas gauge is a visual dip-stick in the gallon tank mounted directly behind the seat. This gravity-fed fuel tank eliminates the expense and weight of two fuel pumps. The twin magnetos are controlled with toggle switches on the instrument panel. A visual check confirms control freedom, and after dropping the recommended 15° of flaps for take-off, you're on your way. With two passengers in the *Skooter*, the take-off roll took 12 seconds and slightly over 250 feet of runway from a standing start. Throughout the climb, 15° of flaps kept the nose far enough down to guarantee

good visibility. On the day these test flights were made the air over film-land's famed San Fernando Valley was extremely choppy as dust-laden thermals filled the air. The *Skooter*, because of its light weight and short wing span, bounced around a bit, but responded easily to control corrections. The rate of climb seemed to average out at over 600 feet per minute.

In level flight the *Skooter* has as good visibility as any plane on the market. A great advantage lies in having the pilot far enough forward so he can see practically straight down over the leading edge of the wing. With sufficient cushions, not taken on this flight, a pilot should be able to see almost directly behind by looking around the edge of the gas tank. Cruising the 65-hp Lycoming engine at 2550 rpm, the air speed read 95 mph at 3,000 feet. The air speed head is mounted atop the rudder and is designed to give more accurate readings than do conventional wing-mounted tubes. At this power setting, fuel consumption is 4 1/10 gallons per hour.

"Many lightplane accidents," said Mr. Thorp prior to flight, "are caused by pilots using top rudder during their last turn into the field. Try some stalls out of turns when you go up."

In a tight turn with the stick all the way back, full top rudder was added. The little plane gave ample warning before it stalled, and then did a slow, lazy vertical reverse-ment into a turn in the other direction. There was no tendency to spin. In fact, the *Skooter* will not spin, no matter the urging. In straight ahead stalls without power, the nose dropped slowly below the horizon at just under an indicated 40 mph. The *Skooter* gives plenty of warning of an impending stall so that no mechanical stall-warning device will be needed.

The noise level in the cabin is higher than in some new lightplanes, but pilot and passenger talk without shouting. Some sort of

non-glare paint should be added to the bright instrument panel to reduce eye strain. But on the whole, the new model is surprisingly free from "bugs."

Under 80 mph, let-downs in the *Skooter* may be aided with full 45° flaps. The little plane dives steeply without gaining speed and the pilot has a perfect front-balcony view of his flight path. Speed in a slow-flying traffic pattern can be reduced to 40 mph with flaps and partial power. Mr. Thorp recommends 15° of flaps in a normal traffic pattern and full flaps on the final approach. On a high approach a pilot can safely dive at the short end of the runway without picking up excessive speed. The actual landing, as in all tricycle gear planes, is a cinch. The main landing gear, 7 feet and 2 inches wide, is fitted with easy-riding shock absorbers and the lightweight plane makes contact with the ground like the proverbial feather. From 45 mph, the *Skooter* can be stopped in 200 feet without skidding the tires.

Mr. Thorp is not only a good aircraft designer but also a good salesman. As a final clincher to prove the easy flying characteristics of his *Skooter*, Mr. Thorp asked the writer's wife, who has less than 25 hours' total solo time, to fly the plane. Since there were no dual controls, she climbed into the left seat and Mr. Thorp went along for the ride.

"Anyone who has ever soloed can fly this little plane. I can talk her through any difficulties she might encounter," he said before they taxied out. She was the first woman to fly the *Skooter* and had no trouble in handling the new design in spite of the fact that she had never before flown a plane with either flaps or a tricycle landing gear.

Yes, the *Sky Scooter* is a good all-round, easy-to-fly airplane and with sufficient financial backing to insure mass production methods, the sky could easily be crowded with these shiny, pint-sized planes. ✈✈



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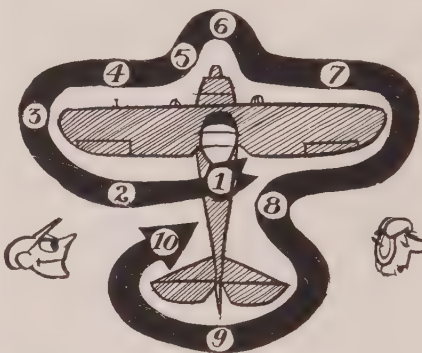
See page 54 for complete
details.

Dilbert

(Continued from page 47)

Fortunately, most of the important parts of your airplane are readily accessible and can be inspected in a very few minutes. By using a set procedure for the check, there will be less chance for you to forget anything. The following sequence, with slight variations for special planes or conditions, is accepted quite generally as standard.

1. First, go to the cockpit and make sure the switch is in the OFF position. This doesn't have anything to do with the plane's flyability, but with yours, when you later inspect the prop. Never fool around an airplane without first checking this point.
2. Start at trailing edge of left wing and inspect the fabric, top and bottom, for tears or wrinkles. Check movement of aileron and condition of fittings. Make sure pins are safetied. Throughout your check, be sure all inspection plates are secured.



"Good pilots follow this check route"

3. Inspect wing tip bow, particularly underneath, to insure wing has not been dragged or damaged in the hangar. Take hold of wing end and shake it gently, but firmly. If this produces a rattle, there is possibly a broken drag wire inside. Undue flexibility or wrinkling of fabric may indicate a broken spar.
4. As you move around leading edge of wing, see that pitot tube is uncovered. You will find it very embarrassing to take off and then discover that your pressure-operated instruments indicate you are still on the ground. Check tension of wing struts and brace wires, being careful not to pull so hard as to damage the spreaders.
5. Occasionally gauges do not function properly, so check your supply of gas and oil, using your finger or a clean stick. Listen to

Dilbert's sad story after neglecting this:

"There I was, over the worst terrain of my entire trip. All I could do, as I watched the propeller blast siphon off the gas in a steady spray, was to sit there staring at it and hoping it wouldn't catch fire. I seemed to remember many cases where this had happened and thought about jumping, but the country was too rough. I tried nosing her over, but that only made it worse. Then I figured I might reach the emergency field at Cactus. I'd have made it, too, only I had wandered considerably off my track during the excitement. So I was about five miles short when she konked. Believe me, when I get my plane insurance money, I'm going to invent some system that will make it impossible to start the engine on my next plane until all tank caps are locked on tight."



"Dilbert thinks eyes are for sleep"

Dilbert's last idea wasn't too dumb. You could do this and make it simple enough. You wouldn't have to worry where the money for his next airplane was coming from.

6. The next inspection step is to back up a short distance from the nose of your plane and check the wheel alignment. If one wheel is low, you are apt to groundloop.

Inspect the propeller blades for nicks or cracks. If it is copper tipped, be sure there is no indication of this coming loose.

Note that wheel chocks are in place.

If there are any signs of dripping gas or oil under the engine, check where the leaks come from.

Insure that all cowl fasteners are secured properly. Windshields and tail surface fastenings come out second best when pieces of cowl start tearing off in the air.

7. Move along the right wing and inspect the wing exactly as you did the left one. It takes time to keep you in the air.

8. Inspect fuselage covering for damage, especially near the tail post or rear of fuselage. Looseness or wrinkling of fabric usually indicates a bent longeron or strut. If the fuselage is of the all-metal, stressed-skin type, wrinkling of the skin usually indicates an incipient failure due to previous overstrain. Don't

9. Check tail surface coverings, the same as the wings. Also, the hinges, control hinges, struts and brace wires. A strut which is slightly buckled has lost most of its strength.
10. Inspect left side of fuselage as you return to the cockpit. See that nothing is lying loose in the baggage compartment, and that all fasteners are secured.

You can get in your plane now, but don't start the engine yet. There are still some pre-flight checks to make. Are you familiar with the location, function and operation of the master battery disconnect knob, dial, lever, switch and gadget and you?

I know you are anxious to get in the plane, but we've got to learn the fundamentals first. Anyone who takes off without making a pre-flight check or being thoroughly familiar with his cockpit, should be grounded until a bump of common sense begins to develop.



Portrait of an able and alert pilot

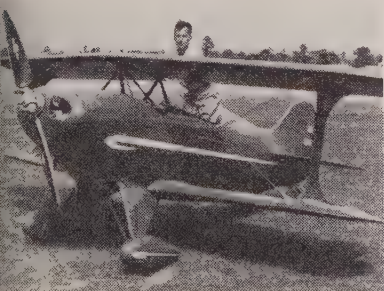
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The tiny ship is, at the present, being readied for a tour of the country with World Air Shows. Some of the maneuvers that its pilot, P. C. Quigley, will do, are: eight-point rolls, vertical snap rolls, slow rolls with 180 turn, inverted Immelmans, inverted Cuban 8's and square loops! *S. B. Jones*



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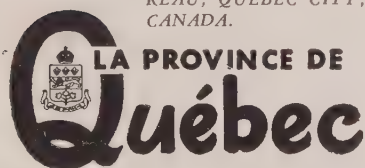
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Adrift in a Cruiser

(Continued from page 42)

of water rudder I'd like to pass along one trick we made use of when the occasion demanded it and that was "sculling" with the *Cruiser's* water rudder. (Sculling is a rapid twisting motion made with an oar, generally at the stern of a row boat or skiff, a forward motion.) In calm water it was possible to produce momentum by fanning, or sculling, with the water rudder—this isn't recommended procedure as it would create unnecessary wear on the cables for conventional use, but in an emergency it's a good trick.

Canoe Paddle Power

For auxiliary power in moving your seaplane in a tight moment there's nothing quite like the canoe paddle. Many a bashed float or damaged wing tip has been prevented by a bit of energetic paddling off a float.

The *Cruiser's* take-off (Figure III) is exceptionally good if a little nose-high trim is rolled in on the stabilizer. The 100-hp Lycoming engine revs up to about 2350 rpm on take-off. With the Kopper's Aeromatic, the tachometer will wind up to 2600 rpm easily.

The most memorable take-off I made in the *Cruiser* was in Chesapeake Bay on a sunny day. A 5-mph wind was blowing steadily and the surface of the water was rippled. With 2350 rpm, much baggage and two people weighted down in heavy winter clothing, NC 92706 was up and away in a very short run. Other times, it was necessary to use seaplane techniques. There was the take-off in Biscayne Bay down in Miami, Florida, on a calm day from a nearly glassy surface. The lack of ripples on this kind of water doesn't allow the suction on the floats to give way and so, in this case it was necessary to make an abrupt nose-high turn to lift one float off and then the other.



Approved take-off procedure for seaplanes was always observed with the *Cruiser* by pilot but that's just because I always liked to play the game holding all the top cards on the deck . . . as long as I'm dealing. I'd watch the water's surface carefully for "drifts." If it seemed likely any was present, I'd take the full length of the intended take-off. Incidentally, it should be remembered that taxiing down-wind in a high breeze requires sufficient throttle to keep the plane's momentum greater than the wind's velocity to counter resistance and force the tail down.

For take-off (into the wind) the water rudder is lifted out of the water. (The handle for this in the *Cruiser's* cockpit is on the left side. The stick is held all the way back and a full throttle applied. This will not allow the plane to move very fast as the attitude produces drag (see Figure IV) but it decreases the suction area on the floats and together with the lift on the wings places the *Cruiser's* floats in a favorable attitude to get on the step. The seaplane is in take-off attitude when the craft is planing or on the step (see Figure V). If there is sufficient wind so that the water is rippled or roughed up with waves, the *Cruiser* with an Aeromatic prop will come airborne after a 15-second run. With a fixed-pitch seaplane prop on your *Cruiser* instead of Aeromatic it takes little longer.

Rough Water Take-off

The rough water take-offs in the *Cruiser* were always satisfactory from the pilot's point of view. In making a take-off over waves of any description, the bow end of the floats, when the plane is "on the step," must be low enough to pierce the waves. This produces a spray harmful to the prop, slows down the plane and in general is a poor practice. The bow of the floats should be kept over the crest of the waves by retaining a little back pressure on the control stick after the plane is "on the step." This take-off resembles a three-point "stalled" take-off of a landplane as opposed to a tail-high take-off run. Incidentally it is one the *Cruiser* forms well.

In flight, NC 92706 had the same performance as the landplane *Cruiser* has. Over 2600 miles averaged 100 mph! Fortunately some of the tail winds were as strong as 20 mph. The *Cruiser* trims well for level flight—from Worth, to Miami one evening at 1,000 feet the *Cruiser* flew me as straight and level as a trimmed-up airliner.

Its 38-gallon fuel supply is a boon to country navigating, but its fuel gauges present a problem at times. NC 92706 seemed to have a four-hour fuel range—but use of white pine fuel, carburetor heat or demonstrations, involving more take-offs and landings than its normal cruising, had me guessing whether the tanks were or weren't empty especially because they indicated empty before they were.

Refueling in the *Cruiser* is no problem as long as a fuel line is a part of a refueling stop's facilities. (See Figure VI.) Other than it is necessary to stand on boxes on the wing and pour through funnels into the wing openings on top of the wings.

A seaplane landing, 99 per cent of the time is right into the wind. Contrary to a seaplane pilot's conception, the three-point-low landing (see Figure VII) is cushioned when done properly. A seaplane

(Continued on page 79)

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(Continued from page 77)

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September Issue

Flying Weekend

(Continued from page 68)

over the spots being considered is a must. Coming low over the beach, the sand looked pretty soft. Foot marks, ruts, shadows help tell this. The tide was high, and there was none of the wet, hard-packed sand that is so admirable for landing. One strip of beach, heavy with pebbles, did look good, but going by the old rule of don't try it unless you're sure, we passed it up for solid ground.

Nearby was a cow pasture. A good look revealed that it was rolling, and aside from a few logs, it looked clear. We landed and rolled to a bumpy halt. The pasture was within walking distance of our friends, but we decided to find out about the beach where we'd be within whispering distance.

A five-minute conversation with a native revealed that the pebble part of the beach was hard, "Not concrete hard, but let a little air out of your tires, and you'll make it all right." That sounded like good advice and we took it.

A couple of minutes later we were over the beach again. We picked out the clearest spot, came in on final approach slow, nose high, flaps fully extended for a full-stall landing, using a little power to let us down easily.

We hit, and immediately could feel the sand pulling us to a quick stop. We ended the landing run of about 200 feet (not unusually short for an L-5) less than 25 feet from where our friends had been sunbathing.

Yes, the swimming was good. And the roast was delicious.

Late in the afternoon, we made motions to go. As we said good by, a friend, worried about whether we'd get home while it was still light, asked, "Can you fly at night?"

We told him the plane was equipped for both night and instrument flying, but that we'd be back before dark anyway.

"Gosh," he said, "and I've got four hours of driving ahead of me. Sunday traffic, too."

An hour later our flying jeep-turned-civilian eased us into Abe Steppel's converted farm yard. We landed just before dark. Home was 15 minutes away . . . and the evening was ahead of us.

The round trip had cost us 24 gallons of gas at 26¢ a gallon, and two quarts of oil at 35¢. Total was \$6.94, or \$3.47 apiece.

The four-hour trip by car would have cost about \$4.85 for gas and tunnel tolls. By train, it would have been \$5.44 round trip per person, station to station, three hours and 45 minutes each way. Two airlines serve this area. Closest is an amphibian service landing about 10 miles away. Flying time is 35 to 50 minutes, but the closest terminals are an hour and a half to two hours from our New Jersey homes. Cost, including commuting to the take-off areas, would range from \$8.50 to \$9.25 one way, per person.

With the ranks of flying fans swelled by thousands of ex-service pilots with war-learned techniques, with the present production of versatile planes, and the adaptation to many more of war-learned high-performance characteristics—and with the new airport construction programs, Aunt Sara is going to be saved that trip, and John Q. Pilot is bound to be rescued from his dilemma. But in the meantime you can have fun anyway—we did.

Adrift in a Cruiser

(Continued from page 74)

can be "greased on" by bringing it in with some throttle, cruising over the water and then contacting with the plane on-the-step. But the proper attitude is to land with the stern end of the floats touching down first.

Glassy water landings are difficult because the mirrored surface plays havoc with the pilot's depth perception. Landing with reference to a shore line is one way to get around this. Another trick is to throw something overboard to produce ripples. Highly recommended and conventional is the fool-proof landing in a nose-high attitude. I made a glassy water landing on Lake Mann at Orlando by leveling off with about 1500 rpm and allowing the plane to settle wings level, gradually pulling the nose up a little when leaving the edge of the lake for the center where the surface looked like a steel cookie tin. It seemed to take forever to settle and if you're like me you'll be tempted to take off some of the power—but after you decide on a suitable rpm, be it 1200 or 1500 or 1600, hold that rpm and your wings level until the floats touch. Then retard the throttle.

For a perfect landing every time in the *Cruiser*, roll the trim tab (stabilizer) to full nose-high trim on the landing glide.

Docking, which in a fair way compares to parking the landplane, is usually simple in the seaplane by following the prescribed rules.

Seaplane Docking

Number one, always plan to come alongside (from about 25 feet away on a final straight-in approach) *into* the wind. (The head wind helps hold the plane back; the tail wind would add to the craft's momentum from an idling prop.) When almost even with the dock, the pilot should let the plane weathercock which will head him so that his plane will come alongside the dock into the wind (see Figure VIII). This straight-in approach is as important as the final straight-in glide path on a landing . . . the pilot gets everything lined up just so, fans the rudder to match its effectiveness against the wind and then watches the dockman for his signals.

If the wind is toward the dock the same procedure would be followed—and since there would be a crosswind on the way up to the dock it would be necessary to hold left rudder (with the stick back, aileron into the wind and power). In this instance if the wind is 20 to 25 mph, the prescribed path on the water would be much closer in than a final 25-foot straight in. Instead the seaplane should be taxied toward the right-hand side of the dock so that when the pilot throttles back the plane will weathercock and bring the floats immediately beside the dock.

When it comes to turning the engine off for the dock boy's "cut" signal, this is done in the *Cruiser* by "idle cut off," which means the mixture control is pulled out, closing fuel feed to the carburetor. In time the prop stops. There is a lag giving the *Cruiser* longer propelling motion than the *Cub*, for instance, whose prop stops turning when the mag switch is turned to "off." The idle-cut-off system is the proper way to stop an engine with a self-starter. The *Cruiser's* starter makes seaplane traveling 100 per cent more efficient and adds considerable safety to offset this inconvenience.

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For running the *Cruiser* up a wooden ramp, the craft is lined up for a straight-in approach about 10 yards out. When the bow of the floats is about three feet from the ramp, the pilot guns his ship so that the forward motion of the plane will wash water onto the ramp and assist the plane up. Throttle is used all the way up the ramp (Figure IX). The pilot should be sure the area is clear, and that he doesn't keep right on going after he reaches the top. It isn't necessary to lift the water rudder as the pilot will need it to steer onto the ramp. Going down a ramp, seaplane base personnel will likely hose the boards first, line the plane up, then shove it part way. Power, too, is used. For going down the ramp, the water rudder can be up. Some care should be given by seaplane handlers to keep the stern up as some ships have an additional aero fin attached to the underside.

When docking a seaplane around people unfamiliar with planes, don't be afraid to yell at them to catch a wing. And you may have to keep after them until you can get out and supervise it from the dock. They don't understand how just a gentle tap will dent a stabilizer, a metal float or a wing tip, so watch it!

Beaching (running the plane up on the sand) is similar to running the plane up a ramp. But run it up on a beach slowly—there may be hidden iron castings, cement pilings, etc., where a pier once stood. Until you're sure—easy does it.

And don't leave your plane beached! Take out your anchor and sink one spike into the sand with a short line tied to the float's cleats.

A 50-cent piece will open the float compartments on the *Cruiser*. We kept them free of water with a bilge pump (Figure X) and the one time I didn't, the take-off was embarrassingly sluggish. Learn to clean the gasculator yourself. Around salt air it really collects the water. Safety wire and a small pair of pliers are in order for this detail.

Flying a seaplane up and down the Atlantic Coast (2,600 miles) gives the pilot a chance to get acquainted with the plane he's flying and he's apt to find himself at times maneuvering under the standard of peak operating conditions. I did. Yet I experienced the minimum of seaplane difficulties. This means only one thing:—The *Cruiser* is a safe seaplane in the hands of a seaplane novice, and that was me 60 seaplane hours ago!



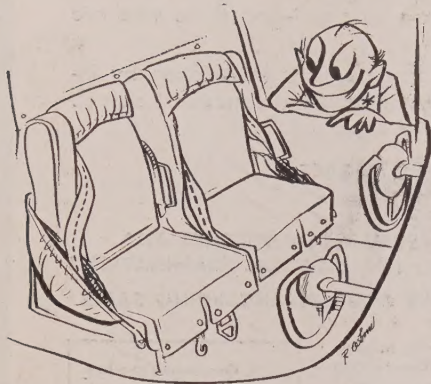
PICTURE CREDITS

COVER—Those of you entering the *Ercoupe* contest will be interested in knowing that three of the very latest model *Ercoupes*, hot off the production line and including the newest features, have been set aside for the winners. NC 94664, NC 94665 and NC 94668 are right now at the factory awaiting their new owners.

Following list gives source of Skyways' pictures

12—BERT JACKSON; 16—SCHMIDT; 18, 19—AERO ARCHIVES, IAS, UNDERW'D & UNDERW'D, ACME, WIDE WORLD; 20, 21, 22, 23—ARENTZ; 24, 25—SHERMAN, O. B. TROUP; 26, 27, 28—UAL, TWA, PAA, NEWS REEL LAB, PRESS ASSOC; 29—BRANHAM ASSOC; 32, 33—ARMSTRONG SIDDELEY, BRIT. INFO. SERV; 36, 37—HARRISON MITCHELL AVIA; 38, 39—PIX; 40, 41, 42—SKYWAYS BY LYON; 43, 44, 45—DON DOWNIE; 48—BEECH; 52—N. AMERICAN; 58—FLIGHT; 68—ACME; 70—ACME.

Just in Case . . .



If you'll give a look down at the bottom of the next column, we'll introduce you to "Happy Harry," the pilot with a parachute, and his confrere "Worried Willie," the guy without a 'chute. Both, of course, are airmen . . . two characters from just any airport and who fly because they love it. From where you're sitting it shouldn't be hard to pick out the one who's life of the party. Which one would you pick to fly you a couple hundred miles cross country, perhaps over a terrain not conducive to emergency landings? You . . . and all other cautious riders . . . would naturally pick the guy with insurance—another nine-letter word that, in this case, spells parachute, and you'd trust him to have a 'chute to fit you, just in case you needed it.

Fortunately today, all airplanes and engines are so well built that simple care and consideration . . . plus gas and oil . . . are all that's needed to keep them flying in good shape. Emergency landings are more rare than they used to be, and emergencies that might require a pilot and passenger to leave a ship are very rare indeed. However, long shots do have a knack of coming in on occasion, and it's at just that occasion that a parachute becomes insurance and pays off in the form of money *not* having to be paid to the missus and the children.

The average plane owner or pilot on just round-the-local-countryside air travel may not think it necessary to own a parachute. But should an air trip come up that is over unfamiliar country and that might mean periods of air travel after dark, the plane owner and pilot in a peaceful state of mind is the guy who not only gave a great deal of thought to purchasing a parachute for himself and his guest rider but who went right out and bought them . . . and he kept them handy just in case.

Recently the Irving Air Chute Company, Inc., of Buffalo, N. Y., announced their new chair parachute. Placed inconspicuously in the back of the plane's seats, the Irvin Chair Chute eliminates the inconvenience of carrying chutes around by hand, wearing them, or having to find the proper place to store them when your ship is on the ground and not in use. This chair chute installation is available for several personal planes.

Insofar as comfort and appearance are concerned, the "details" of the chair chute are concealed, thereby not upsetting the decor

of the plane's interior, and it actually does add to the comfort of the plane's seats. Better than that, in the case of an emergency, the parachute is instantly available. It takes only a matter of seconds, when seconds count, to put on the chute . . . and use it.

Another "insurance chute" available to the plane owner is the old faithful Irving Back Chute. It is extremely compact and flexible and permits a maximum of freedom of movement on the part of the wearer. For those who find it advisable to wear a chute at all times while flying, this back chute is so comfortable that the pilot hardly realizes he has one on at all. But, Brother, it's there when he wants it . . . and when he wants it, no reasonable facsimile will do. It's got to be the real thing.

These are only two of the "insurance" devices perfected by the Irving Air Chute Company. There are others, and a note to the company will produce information regarding all of their chute products.

If you are a plane owner . . . or a prospective plane owner . . . consider wisely the purchase of chutes. They are classified as accessories, you know, and can be financed as such on the CIT time-payment program. It's a few dollars extra spent wisely each month over a fairly short period of time.

Yes, all's well that ends well . . . and you'll be a "Happy Harry" instead of a "Worried Willie" if your end is held up by an Irvin Chute on those cross-country air trips that are fun to make.



Where to Fly

(Continued from page 14)

ing states in the union. Utah yearly attracts many visiting airmen, whether they come by airliner or via personal plane. Joseph S. Bergin, Director of Aeronautics, reports there is excellent hunting and fishing in just about all parts of the state and only a short distance from any airport. But if you want neither fishing nor hunting, don't pass up Utah in favor of any other place . . . the scenic beauty of the Beehive State has beckoned visitors back year after year.

To winter-sports enthusiasts, Utah is unequalled. To fishermen who wade the stream or try the lakes and rivers for trout, steel heads, etc., Utah is unequalled.

Pilots flying in the state of Utah for the first time are advised to get route and airport information from Utah pilots familiar with mountain flying, etc. The more tips a personal pilot accepts from mountain flyers the better trip he'll have and the safer flight. Don't forget that mountain flying is very different from sea-level or flat-terrain flying.

United Air Lines and Western Air Lines serve the state as do any of several charter services within the state. Accommodations for overnight or week or month stays are excellent.

PERSONAL PILOT INFORMATION:

Skv Haven Air Park—Bountiful. (Cl. 2)—El. 4,222 feet. Paved runway N/S. Gravel strip, NW/SE. Wind cone. Obstructions: Pole line, SE. NW, S, N. Hangars, storage, repair. 73 Octane fuel. Taxi, private car to town 2.6 miles SW. (Salt Lake City Chart)

Brigham Municipal Airport—Brigham. (Cl. 2)—El. 4,220 feet. L-shaped field. Clay & gravel strip, N/S, E/W, NW/SE. Obstructions: Pole line, S; Power line, W. Hangars, storage, repair. 73 Octane gas. Taxi or private car to town 3 miles NW. (Salt Lake City Chart)

CAA Intermediate Field—Bryce Canyon. (Cl. 3)—El. 7,580 feet. Paved runway. Rotating beacon, course, range, landing strip and obstruction lights. Boundary day marker. Name on hangar, lighted wind cone. Obstructions: Hills, NW. SE. Poles, SW. Hangar, radio range facilities, weather bureau. 73 Octane fuel. (Grand Canyon Chart)

Fillmore Airport—Fillmore. (Cl. 3)—El. 5,008 feet. Dirt strip N/S, gravel strip NE/SW. Hangar, storage, day service. 73 Octane fuel. Snack bar on field. Private car to town 2 miles WSW. (Grand Junction Chart)

Ogden Airpark—Ogden. (Cl. 1)—El. 4,700 feet. 3 gravel strips, N/S, NE/SW, NW/S. Wind cone. Hangars, major repairs, day service, storage. 73 Octane fuel. Private car to town 4 miles S. (Salt Lake City Chart)

Editor's Note:—Airport information supplied in the "Where to Fly" columns is to be used as supplementary material only. For detailed information we suggest that you consult CAA's Airman Guide. We invite your criticism and correction of any errors that might occur. Your help will help us to provide personal pilots with accurate and necessary airport data.